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ABSTRACT

This information packet contains 48 reprinted articles dealing with resources allocation in rural and small schools. A number of articles have a direct rural focus, while others cover the more general issues and principles surrounding resource allocation. The packet is divided into the following sections: (1) an overview of budget development strategies and issues for the 1990s; (2) public relations strategies to gain support for schools; (3) community development and community involvement in budget and non-budget issues; (4) the planning process for resource allocation; (5) potential new revenue sources; (6) operations decisions; (7) program decisions; (8) facility decisions; (9) cooperation and consolidation; and (10) other information sources. Each article contains information as to its original publication source. (ALL)

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SMALL SCHOOLS NETWORK

INFORMATION EXCHANGE

Number 9

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ALLOCATING RESOURCES IN RURAL AND SMALL SCHOOLS

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SECTION 1

BUDGETING ISSUES

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Boardroom Bottom Line

The budget your board approves and the process you use to build it show the public your school priorities

BY HARRY J. HARTLEY

NOTHING SAYS MORE about what your school board considers important than your annual budget. After all, a quick comparison of the money allocated to, say, remedial reading versus that spent on the football team can be a telling statement of board priorities.

That's why you need to take great care when you put together your next budget. It's not enough simply to balance revenues and expenditures. The public expects you to provide the best education possible for its tax dollars, so you have an obligation to review your school budget with renewed diligence and a determination to put the needs of students above all else.

If you're new to your board—and to budgeting—no doubt a lot of questions are coming to mind: Where do I begin? What do I look for in the budget? How do I tell whether the budget meets the board's education priorities?

As a former school board member and a consultant on school finance, I know the difficulties you see ahead. So I've put together this ten-step primer for better budgets:

1. *Start with fiscal policies.* A thorough review of board policies regarding the budget and the use of funds is wise. One school system ran into controversy when it was discovered that administrators were transferring funds from one account to another—basically rewriting the budget out of the public eye. Only the school board had the authority to make such changes, but no policy existed to guide administrators.

Your policy handbook is a good place to begin this review. Make sure you have policies specifying what budget procedures will be followed, which accounting and reporting systems are to be used, and who has check-signing authority. You should also review policies for compliance with state regulations. Good policy models are available from the state or national school boards associations, or ask to review the policy handbooks of neighboring school systems.

2. *Select a format for your budget.* Many school boards rely on a budget format that lists expenses according to categories such as salaries, supplies, and textbooks. But this "object budget" tells little more than the cost of things you've purchased. To decide whether resources are being wisely allocated, you should insist the superintendent present the budget in additional formats.

One useful format lists how salaries and other expenses are divided among specific programs, such as reading instruction, remedial programs, dropout-prevention efforts, central office administration, and interscholastic sports. This "program budget" allows your board to see funding priorities—and to raise questions if, for example, large sums are allocated to under-enrolled electives at the expense of basic-skills courses.

Another format is the "site budget," which can point out spending inequities among individual schools. Decide what you want to know, then select the format that will provide you with that information.

3. *Ask what assumptions guide the budget.* Your board's review of the budget request shouldn't start and end with the bottom line. First, you need to know what factors influenced the superintendent's proposed allocation of funds: Is the administration predicting increasing enrollment? Were poor test scores the reason behind increases in remedial programs? Do staff development programs need to be bolstered? Have new state mandates forced additional expenditures?

The assumptions behind the budget's development and the superintendent's priorities should be listed at the beginning of the budget. The superintendent should tell the board how this year's budget differs from the previous year's and why. This is important because the board might not agree with the superintendent's reasoning, and without this information, board members cannot make appropriate changes to reflect their beliefs.

4. *Ask the tough questions.* Don't be reticent. Asking tough questions will help you make the right decision when it comes time to approve the budget. And knowing the answers will save you embarrassment if someone asks the same questions at a public budget hearing. After all, you don't want to turn to the superintendent every time a question is raised. You want to show that the board is well-informed. (For a list of typical questions, see the article on page 31.)

5. *Allow yourself options.* Your school board isn't forced to accept the superintendent's budget proposal. If you don't

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This checklist makes for better budgeting

It makes good sense to evaluate your school board's budget-making process at the end of each year. The following checklist will help identify areas where potential problems might be waiting to happen.—H.J.H.

Conducting the hearings

____ Roles of board and superintendent are clearly defined.
____ Board financial policies are updated regularly.
____ Financial data are accurate and timely.
____ Staff is adequately involved in budget request.
____ Public hearings are held with citizen participation.
____ Budget document (or executive summary) is widely distributed.
____ Budget process complies with legal requirements.
____ Community/political support is generated for budget.
____ Contingency strategy (budget options) exists.
____ Efficient accounting/financial reporting system is used.

Organizing the document

____ Cover, title page, and overall appearance are attractive.
____ Includes table of contents or index and numbered pages.
____ Lists names of board members and officers.
____ Includes organizational chart and lists school administrators.
____ Includes budget message or letter of transmittal.
____ Uses good graphics/artwork, charts, figures, tables.
____ Style is clear and avoids technical jargon.
____ Document size and shape are manageable.
____ Offers glossary of key financial terms.
____ Includes concise executive summary (budget in brief).

Compiling the data

____ Bottom-line requests are politically feasible.
____ Considers school system goals and objectives.
____ Considers budget assumptions and priorities.
____ Includes summary of "object budget" (salaries, supplies).
____ Includes summary of "program budget" (reading, math).
____ Includes summary of "site budget" (individual schools).
____ Provides budget history (expenses listed for five years).
____ Gives unit cost analysis (per-pupil expenditures).
____ Summarizes estimated school system revenues from all sources.
____ Explains impact on tax rates.
____ Explains major cost factors (contracts, inflation).
____ Explains budget coding system (chart of accounts).
____ Considers performance measures (test data). Lists pupil enrollment projections by grade.
____ Gives staffing history and projections.
____ Considers long-range plans for school system.
____ Justifies major decisions (layoffs, closings).
____ Compares costs to other districts and state averages.
____ Summarizes capital budget (improvement projects).
____ Includes budget detail (line-item expenditure data).

agree with his assumptions or funding priorities, you have every right to insist on alternatives. That's especially true when financial problems arise. If painful cuts must be made, you'll want to be able to choose where the ax must fall.

One approach is zero-based budgeting. This approach requires administrative departments not only to explain increases in their budgets, but also to justify the very existence of their programs. Another approach is to ask them to explain how they would make a 10 or 15 percent cut in their budgets. Some ideas: deferring equipment purchases, delaying maintenance work, trimming staff development funds, or cutting staff.

6. *Prepare an executive summary.* The school budget is for everyone. So ask your superintendent to provide a nontechnical, easy-to-read summary of the budget for laymen—which might mean board members as well as interested taxpayers. This 10 or 15-page summary should contain budget highlights, the superintendent's budget assumptions, explanations of any unusual variations from the previous year's budget, and revenue estimates.

Included in this report should be one-page summaries of the various budget formats used, along with an explanation of what these formats reveal. If it's properly prepared, the executive summary can be distributed to citizens and the press—and for most of them, serve as the only material they need in reviewing the budget.

7. *Plan public hearings.* Depending on the degree of public interest, your board might want to develop procedures for citizen participation in upcoming budget hearings. That's especially true when staff cuts or tax increases raise the specter of controversy and angry public displays.

If you expect a hue and cry, it's a good idea to choose a large room for the hearing, set aside space for television cameras and reporters, arrange a procedure for speakers (provide sign-up sheets or set time limits on comments), and prepare a question-and-answer handout for the audience. Inviting key administrators (including principals and program directors) to field questions from members of the public will add credibility to the answers.

8. *Provide attractive documents.* Your budget sets the direction of the school system for the coming year, so use the budget as a public relations opportunity. Avoid dull, difficult-to-understand printouts of line after line of figures. Treat your executive summary and other budget materials as if they were a corporate annual report. Publish well-organized, easy-to-read material, using pie charts and graphs and concise, jargon-free writing that sells the public on the budget.

Find the answers to these tough budget questions

If a taxpayer asks your school board to explain why instructional dollars are being redistributed in next year's annual budget, are you prepared to answer?

You'd better be. To win public support for your school budget, you must anticipate the most challenging and difficult questions and insist your superintendent prepare responses to them. Even if the questions never arise, knowing the answers will help your board fulfill its responsibility to see that tax dollars are spent wisely.

To help you start asking the right questions, here's a list based on issues often raised by the public:

1. The bottom line: Why is the proposed budget increase greater than the projected rate of inflation?
2. Enrollment decline: Why is the budget increasing when pupil enrollment is decreasing?
3. Local taxes: How much will local property taxes increase next year because of this budget?
4. Financial aid: How much revenue will the schools receive next year from state and federal sources?
5. Staffing: Does this budget anticipate any staff reductions or additions? Why?
6. Program changes: Will any programs or services be reduced or enlarged in the proposed budget? Why?
7. Evaluation results: What is our money buying? Do you look at the results you're getting from a program before you approve funding?
8. Basic skills: How much is spent on instruction in basic subjects such as mathematics and reading? How much is spent on athletics, electives, and programs for the gifted and talented?
9. Special education: How expensive is special education? Does it receive preferential treatment in the budget?
10. Pupil-teacher ratios: What is the anticipated pupil-teacher ratio? What about class sizes? What are your five-year projections for enrollment and staffing needs?
11. Administrative costs: How much is spent on school administration? What percentage of the entire budget goes for administration?
12. Comparative costs: How do we compare in per-pupil expenditures with other local school systems and with the state average?
13. Efficiency measures: What has the school board done to control spending, eliminate waste, and improve operating efficiency? Were there any savings last year?
14. Teacher salaries: Why is so much money going to teacher salaries and fringe benefits?
15. Health care costs: What are you doing to control the rising costs of employee health care?
16. Controllable costs: What proportion of the budget consists of mandated costs? What proportion is discretionary?
17. Building maintenance: Does the budget provide adequate funds for maintaining school facilities?
18. Capital projects: How much will be spent for capital improvements? Is there a long-range capital budget plan?
19. Equipment needs: Is there a plan to buy new equipment and replace existing equipment?
20. Contingency strategy: Have you developed budget options? Is there a contingency plan in case budget cuts are necessary?—H.J.H.

9. *Tighten financial controls.* Once your budget is approved, the school board still must oversee its implementation. You'll want administrators to provide regular reports regarding the budget situation. The most common approach is the "encumbrance report," which shows the balance in each account and what is spent by the end of each month.

Perhaps more useful to your needs, however, is a "variance report," which shows how close actual revenues and expenditures are to budget plans. Thus, if the budget predicted that 70 percent of the funds set aside for energy costs would be spent by February and 80 percent has actually been spent, that 10-percentage-point variance from plan would be brought to the board's attention. Other useful budget reports include audits, capital project status reports, and a list of payments to vendors.

Staying on top of your budget is essential if you hope to have the time to respond to problems. Also, such oversight reports are important to ensure that administrators aren't circumventing the intentions of the board. Example: Some superintendents delay spending their equipment budget until late in the fiscal year. If financial difficulties force budget cuts, this pool of unspent funds provides the superintendent with a reserve fund. Your board might find this perfectly acceptable, but many board members disapprove of this practice, preferring to see the equipment put into students' hands quickly.

10. *Conduct a budget postmortem.* Were budget predictions accurate? Did monthly budget reports provide a clear picture of the schools' funding situation? Are there any administrative problems that need resolving? If you want the budget process to work smoothly, your board must address questions such as these at the end of every fiscal year.

Reviewing budget practices occasionally throughout the year also is a wise move. For example, reviewing vendor payments might reveal that bills aren't being paid within the 30 days set by board policy. Or a check of inventory might reveal that lists are out of date or equipment is improperly identified. The secret is never to stop looking for problems. (For additional help in evaluating your budget, see the checklist on page 30.)

These ten recommendations should help guarantee an effective budget for your school system. But much depends on how much time and effort your school board puts into its oversight of the budget process—and on whether the board is willing to insist that administrators follow responsible, fiscally prudent procedures.

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Scanner

Top 10 educational issues for the '90s

This is the beginning of the second decade for education's only systematic trend watching and issues management program developed by NSPRA Past President William J. Banach, ASPR. Just published are his top 10 educational issues for the '90s:

1. Children in low esteem

A majority of U.S. families have no children under age 18. The number of single-person households has doubled in the last 15 years. Seventy percent of new home buyers need two incomes to make the mortgage payments. These demographics speak to the aging of the population, changing value systems and economics—three forces which are converging to place our nation's children in low esteem. Here's the paradox of the issue: Educational quality deteriorates when children are placed in low esteem. In turn, lower quality education produces a lower caliber workforce.

2. Shaping the century ahead

About 60 percent of education's workforce will change during the 1990s. Whether it's retirement, relocation or reassignment, staff demographics present education with a profound opportunity. Capitalizing on it will require an assessment of purpose and an evaluation and revamping of hiring and training practices. Personnel people must be vision-oriented and understand what the organization seeks to accomplish. Their job will be to recruit people who have skills and value systems consistent with the culture and vision of the organization. It is time to marry the disciplines of organizational theory, personnel, psychology, management, human resource training, public relations and education.

3. Cutting corners

Quality is the hallmark of the craftsman. The caliber of his workmanship and attention to detail create demand for his products and services (and bring premium prices, too). America needs a national commitment to the building of character, responsibility and self-esteem. Our children need—first of all—parents and adults who model the characteristics of the craftsman—who demonstrate in their lives the attributes of attention to detail. They need to learn that commitment, responsibility and pride lead to both personal exhilaration and a job well done. They need to learn from example that there are no shortcuts to high quality and performance. They have to learn that no one can build self-esteem by cutting corners.

4. Ethnic beachheads

The questions for the nation are clear: How can America remain unified and cohesive if every nationality is committed to strengthening its own ethnic heritage? How will we ever define—let alone attain—national goals? During the past 15 years, the number of minority language children in America increased by almost one-third. And 11 percent of the country's population speaks a language other than English at home. Educators must deflect the political and social pressures which push them to cross the line between understanding and preservation.

5. Leadership by poll

Polls are not designed to make decisions. They are designed to provide leaders with decision-making information. In education, leadership by poll and responding to political breezes are tied to lack of vision. Without a destination and a process for getting there, people cannot set a course for the future. They are forced to operate at the whim of political winds. Visionary curricula, student achievement and community harmony do not result from leadership by poll. It is one thing to watch for the signs of changing weather. It is yet another to be blown in the direction of every breeze.

6. Competitions and contests

After 20 years in education, I can't recall any business that has summoned the neighborhood elementary school to ask for help on its logo, stationery design and corporate image. Yet it happens routinely in our school...and then educators wonder why they have a bad image. Perceptions of public education are not favorable as we enter the 1990s. Relying on contests certainly will not produce the sophisticated communication needed to narrow the understanding gap between the schools and the people they serve.

7. Rubber yardsticks

Educators cannot tell a student or his parents what to expect after a dozen years of schooling—they cannot produce a contract which specifies the bottom line for a 12-year investment. Instead of national goals for education, America has local control at its worst. And nationally measurable results will not become reality so long as every community can define a course of study. America needs to guard against special interests narrowly defining educational outcomes. Business, for example, needs to appreciate that education is much more than workforce preparation. It is time to define what we expect every American youngster to know.

8. Money

Educational funding has escaped the annual top 10 list for a decade. Not so this year. Quite simply, American public education cannot prepare students to be competitive in a global marketplace without federal financial support. While legislative statisticians can produce data which show a significant flow of dollars into the educational enterprise, the reality is that federal commitment and financial support have declined over the past decade. There are at least three bottom lines to the federal neglect of education. First, the amount of federal assistance in most school districts has become an insignificant percentage of the local education budget. Second, the lack of federal commitment to education has resulted in a proliferation of state mandates and requirements. Third, we have not addressed the issue of financial equity in our schools. The resulting educational dilemma for society is: As support for schools becomes more local, the arena in which graduates will perform is becoming more global.

9. Preoccupied parents

Parenthood is being redefined. Today's parents juggle chores and careers in an attempt to accommodate a faster paced lifestyle. Too often the result is less time for everything—including parenting. Family diversity, parent skills and time are factors which converge at the schoolhouse door. They are factors which need to be addressed well before kindergarten.

10. Getting through the book

The numbers are astonishing. Information doubles every 900 days. Calculations are completed in billionths of a second. Data zips from one point to another at the speed of light. And the pace is quickening. At today's rate, the body of information will quadruple before a first grader graduates from high school! How will all this information be packaged and stored? How will learners access it? How will they separate the useful from the extraneous? How will they process it? The movement away from chemical packaging of information (printing, photography) to electronic (digitized data on disks, for example) will put more information in smaller places. Access will be by faster and faster computers. This means students will spend less time accessing information. It also means that they will have more time to think about what they have accessed. This will require teachers to develop new instructional strategies, new assignments and new measures of student progress. Increasingly, the proliferation of information presents a double dilemma for teachers. They will have to struggle through volumes of information to remain current in their subject area, yet not be overwhelmed. They will have to become "knowledge managers." They will have to become skilled at understanding and synthesizing information so they can create new knowledge. And they will have to teach their students the same skills.

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Budgeting for the 1990s

BY HARRY J. HARTLEY
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Spring heralds the arrival of another budget season. Once again, school administrators face the challenge of providing sound fiscal stewardship as they justify their budget requests for fiscal year 1990.

Clearly, an education budget is more than the sum of its fiscal parts. In many cases, the annual budget is the best statement of values a school system makes. The expenditure plan reveals exactly how many dollars are allocated to competing programs, while the revenue plan indicates the extent to which local and state tax revenues are earmarked for public education.

W.C. Fields once observed, "The future ain't what it used to be." And perhaps the outlook for school budgeting in the 1990s is not what it used to be either.

For instance, each of the past three decades witnessed the emergence of a major budget innovation in the public sector: planning-programming-budgeting system (PPBS) in the 1960s, zero-base budgeting (ZBB) in the 1970s, and school-site budgeting (SSB) in the 1980s.

As we develop fiscal year 1990 budget requests, no single budget format dominates and no fiscal innovation lies ahead. Many superintendents are wisely incorporating the best elements of recent budget concepts: budgeting by individual programs (PPBS); budgeting by individual schools (SSB); and improving the review of budget options and justification of program funding levels (ZBB).

Both practical and eclectic, this approach often results in a school budget that is more responsive to local needs and does not highlight a particular acronym or fad.

The leadership challenge is to develop the best possible budget process and document that will convey to the board and community what is needed and why. Now is a good time to evaluate your own budget system and make appropriate modifications.

Setting the Stage

In starting the budget process, I suggest an annual checkup or an internal management audit to determine that certain procedures and documents are in place. By setting the stage, we are really describing characteristics of the well-managed organization.

Experience has clearly shown that, even though the superintendent has good intentions and a strong desire to implement budget improvements, success will not be achieved unless sound administrative procedures and good documentation exist. Let's examine the prerequisites to successful budgeting.

Evaluating Your Budget

In reviewing a school budget, try to avoid drawing a "bad" overall conclusion simply because the budget does not satisfy certain biases of the

continued on page 34

continued from page 31

reader. Remember that each budget is responsive to distinctive local needs, has its own history, and is the product of some degree of compromise. A number of factors influence the format of a given budget, including:

- tradition/past practice,
- municipal budget regulations,
- state budget policies and regulations,
- board of education's policies and needs,
- superintendent's style and needs,
- availability of computers and fiscal staff,
- auditors' recommendations, and
- local political factors.

In short, a budget is the product of many factors that have shaped its contents and appearance. However, it is also clear that all budgets should meet certain standards of quality and principles of public budgeting. The budget process should provide adequate staff and public involvement. The format of the document should be well-organized, readable, and informative. The contents should be accurate, complete, and timely and satisfy legal compliance requirements.

A budget evaluation checklist on page 36 is one I have developed and used extensively with school administrators, including National Academy for School Executives institutes on resource management. By using this checklist, an administrator can assess a local school budget and determine whether certain changes may be needed.

Budget Hearings

Budget hearings are essential to a budget's successful adoption and for establishing confidence in the executive. The key to preparing for budget hearings is to anticipate questions and minimize surprises.

A useful approach is for the superintendent and staff to prepare a list of the 10 toughest budget questions and develop appropriate responses. One might hope that none of these questions will be raised at the public hearing, but if they are raised, credible answers can be provided. Examples include:

- How do you justify a substantial budget increase while student enrollment is declining?
- Why is the budget increase twice the rate of inflation?
- Why does special education get preferential treatment?
- How do you measure program results and relate them to costs?
- How much is spent on administration and why?
- Why don't you cut costs by increasing pupil-teacher ratios?
- How much will taxes rise?

Preparing budget briefing books

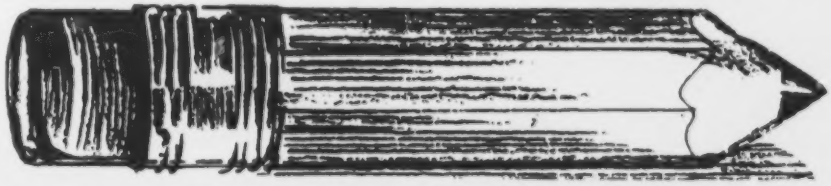
continued on page 36

Contrasting Views of Money

"The love of money is the root of all evil."
(St. Paul)

"The lack of money is the root of all evil."
(George Bernard Shaw)

Source: Aaron Wildavsky—*The New Politics of the Budgeting Process*



Prerequisites to Successful Budgeting

Documents that should be readily available:

Board Policies—current and comprehensive financial policies
Educational Goals—organizational values linked to budgets
Table of Organization—up-to-date administrative structure
Role Descriptions—functional management responsibilities
Budget Procedures Manual—calendar, instructions, codes, forms
Financial Reports—accurate, timely expenditure control data
Annual Report—expenditures and results of past year

Procedures that should be easily observable:

Executive Leadership	high profile of superintendent in fiscal matters
Organizational Stability	low turnover of superintendent and board
Team Management	individual and group values integrated
Business Management	competent business office staff
Budget Workshops	staff training on budget procedures
Public Hearings	open discussions on budget issues
Community Support	local schools viewed as community asset

continued from page 34
is helpful so that administrators can respond quickly and accurately to questions. These loose-leaf, internal documents may contain data on enrollment projections, staffing profiles, class size, fringe benefits, energy costs, labor contracts, capital projects, equipment plans, and special education data.

A final suggestion is for the superintendent to conduct mock hearings with other key administrators. Rehearsals for budget presentations are essential since the best way to make a positive impression at a hearing is to know the budget. Credibility is a hallmark of leadership.

Checklist for Evaluating Local School Budgets

BY HARRY J. HARTLEY

PROCESS: Conducting the Hearings	Yes	No
1. Roles of board and superintendent clearly defined	☐	☐
2. Board financial policies updated regularly	☐	☐
3. Accuracy and timeliness of all financial data	☐	☐
4. Adequate staff involvement in budget request	☐	☐
5. Adequate public hearings and citizen participation	☐	☐
6. Budget document (or summary) widely distributed	☐	☐
7. Compliance with legal requirements	☐	☐
8. Community/political support generated for budget	☐	☐
9. Contingency strategy for cuts (budget options)	☐	☐
10. Efficient accounting/financial reporting system	☐	☐
FORMAT: Organizing the Document		
11. Attractive cover, title page, overall appearance	☐	☐
12. Table of contents or index; numbered pages	☐	☐
13. Names of board members, officers listed	☐	☐
14. Table of organization, administrators listed	☐	☐
15. Budget message or letter of transmittal	☐	☐
16. Graphics/artwork charts, figures, tables	☐	☐
17. Clarity of style; avoidance of technical jargon	☐	☐
18. Manageable size and shape of document	☐	☐
19. Glossary of key financial terms	☐	☐
20. Concise executive summary ("budget-in-brief")	☐	☐
CONTENTS: Compiling the Data		
21. Political feasibility of "bottom-line" request	☐	☐
22. School system goals and objectives	☐	☐
23. Budget assumptions, guidelines, or priorities	☐	☐
24. Object budget summary (e.g., salaries, supplies)	☐	☐
25. Program budget summary (e.g., reading, math)	☐	☐
26. Site budget summary (e.g., individual schools)	☐	☐
27. Budget history (expenditures for past 5 years)	☐	☐
28. Unit cost analysis (per pupil expenditures)	☐	☐
29. Summary of estimated revenues (all sources)	☐	☐
30. Explanation of impact on tax rates	☐	☐
31. Explanation of major cost factors (contracts, inflation)	☐	☐
32. Budget coding system explained (chart of accounts)	☐	☐
33. Performance measures program outcomes; test data	☐	☐
34. Pupil enrollment projections by grade	☐	☐
35. Staffing history and projections	☐	☐
36. Long-range plans (five years) for the school system	☐	☐
37. Justification for major decisions (layoffs, school closing)	☐	☐
38. Comparisons with other districts (or with state averages)	☐	☐
39. Capital budget summary (capital improvement projects)	☐	☐
40. Budget detail (line-item expenditure data)	☐	☐

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Excerpt from School Administrator's Budget Handbook,
by George E. Ridler, MBA, and Robert J. Shockley, Ed.D.
Prentice Hall, 1989.

The most common types of budget include:

- *Zero-based budget*: If your school district follows this type of budget, *everything* in the new budget will start from "ground zero" and have to find its place in the final document, depending strictly on a needs or must-have basis.
- *Program budget*: This type of budget arranges the information by the kinds of programs or services operated by the system; e.g., mathematics, personnel, transportation.
- *Line item budget*: This focus here is on what is purchased with funds; e.g., fuel oil, wages, books.
- *Incremental budget*: This emphasizes changes in expenditures from the current budget to the proposed one. It may be used in context of the program or line-item budget. It is very different from zero-based budgeting.

SECTION 2

PUBLIC RELATIONS

Gaining Support for the Schools

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East Texas School Study Council.

EDUCATION AND THE POWER OF THE PRESS

by Nicholas P. Criscuolo

"Reading Scores Decline for Second Year in a Row"

"SAT Scores Show Sharp Drop"

"Joe Doe Sues School Board for Failure to Teach Him to Read"

These are some of the headlines which have appeared in the nation's press. They do not paint a picture which fosters public confidence in what the schools are doing to educate children and youth. Speak to a group of educators about newspapers and such words and phrases as "hostile," "anti-education" and "biased" are often uttered.

Teachers and administrators complain—often bitterly—about the tendency of the press to downplay or ignore positive news about education in favor of printing stories which cast education in a negative light. Journalists, on the other hand, claim that educators are often deceptive and less than candid with them.

Educators and journalists who write on education for local and national newspapers have, in many cases, become adversaries. Many educators feel that the press is "out to get them." This is particularly true when standardized reading scores are released to the public.

It has been a practice for years in New York City to release the results of standardized reading achievement scores in the *New York Times* and other newspapers.[1] The public is given a list of schools and a comparison of the median or mean reading scores in selected grades for the last two years is made. No other data are listed for each school. Factors which influence test results such as pupil attendance, health, mobility, bilingualism, as well as poverty or a school's Title I status are not noted.

According to Jerome Green, principal of the Ochs Public School 111 in New York City, this practice encourages the public "to make invidious and superficial comparisons." He states:

> "Assumptions and inferences made by the public about these rankings were obvious, although not necessarily accurate. Schools that ranked 'high' were considered 'good schools,' presumably doing well because of superior teachers and supervisors."[2]

Dr. Nicholas P. Criscuolo *is Supervisor of Reading for the New Haven, Connecticut Public Schools.*

If the public does lose faith in the public schools to teach students basic literacy skills, whose fault is it? It certainly is not the fault of the press alone. In releasing test data which can only be construed as one indication of how well children are learning how to read, Boards of Education should provide accompanying information which will help the public understand and interpret test data accurately. Releasing naked scores alone can lead to mistrust and misconceptions.

School personnel not only criticize the content of the educational articles which appear in the press but also the qualifications of the reporters who cover education for their newspapers. Yet Joseph Mc Cord,[3] a former education reporter for the *Fremont* (California) *News-Register* and a school board member in California indicates that editors usually assign their best people to the education beat, and most large newspapers have education writers who are specialists in the field.

Assuming that this is true, why then does educational coverage frequently take on a negative tone? Speak to reporters and they have their complaints too. They feel that many educators are not always honest with them and remain aloof and unapproachable. It is hardly a situation which engenders open communication.

Barbara Mullins who has also been a reporter and school board member, underscores the importance of being honest with the press. She feels that reporters should not have to dig for every single routine fact. She advocates giving reporters copies of the agenda for School Board meetings, and board memorandums except the very few that are confidential.[4]

Mullins does not adhere to a policy of coddling and pampering the press or go to extremes, as do some boards, including those who attempt to buy good press by wining and dining reporters to plus "press conferences." Regarding this she states:

> "Aside from the legitimacy of such use of taxpayers' money, it won't help you at all when the chips are down. Reporters—at least good ones, and the majority are just that—have no hesitation about biting even the hand that feeds them if they believe it is in the best interests of their readers. It only makes the bite more painful when it comes."[5]

One crucial point to remember is that the role of the press is guaranteed by the First Amendment to the U. S. Constitution. The press reports and writes about public occurrences, officials and institutions. It is a potent medium and articles and editorials appearing in the newspapers can shape attitudes and perceptions held by the general public concerning education. William E. Henry, a secondary school administrator, calls newspapers the "watchdogs" of our free society.[6] He, too, underscores the point that the keys to good media relations are honesty and candor.

Educators should not take a defeatist attitude or stance when working with the press. Indeed, there are certain roadblocks and obstacles to overcome. There are reporters and newspaper editors who will always be opposed to the idea that the present educational system can be successful. Charles Putney, former public information officer of the International Reading Association advises that if you run into an immovable object, go around it and seek alternative sources. There are many channels of communication. If one is closed, use the others.[7]

There is evidence that newspapers have been responsive and supportive to education. For example, a group of Florida educators developed a 16-page tabloid supplement titled "How To Help Your Child Learn" which was published on September 17, 1977 as a supplement to the *Florida Times-Union* and the *Jacksonville Journal*.[8] The content of this supplement consisted of activities in the areas of reading and math which parents could do with their children. According to a random survey conducted by Market Research Service, twenty-three percent of the adults who saw the supplement spent 10 or more minutes reading it and it was heavily used in households with children. Additionally, a number of other newspapers requested the right to reprint parts of the tabloid for their readers.

Aanonsen reports on a weekly column titled "Counselor Comments" written by guidance personnel in Messena, New York public schools and published in the local newspaper to help the general public understand the role of the school counselor and the guidance services provided for children and youth. Each column was approximately 400 words in length and included such topics as choosing a high school program, career planning and current guidance activities in the schools.

Several informal surveys, the author reports, have indicated that such a column has been effective and has resulted in an increased number of parent-counselor contacts.[9]

In the New Haven public school system, the author writes a biweekly column titled "Parents School Forum" for the Sunday edition of *The New Haven Register* (circulation 140,000). The column has a Question and Answer format and parents are invited to write in questions they have regarding curriculum, especially reading, to be answered in the column. This column generates approximately a dozen letters per week and, from readers' comments, has been successful in informing them and keeping them abreast of current developments in curriculum.

The power of the press is well-recognized. It can be used to good advantage to inform the public

about what the schools are doing to educate children. Rather than shrug their shoulders or throw up their hands in defeat, educators should take the initiative and launch a broad-based campaign to inform the public through the newspaper. The following seven key points should be kept in mind when working with the press:

- Be candid and honest in dealing with the press.
- Designate someone in the school system to prepare well-timed, well-written news releases for distribution to the press. This person does not have to be full-time; released-time could be offered to a teacher or administrator in the school system who possesses good writing skills.
- Keep the channels of communication open with education reporters and let them know about newsworthy events. Invite them to visit the schools to observe firsthand how they operate.
- Contact the editor to explore the possibility of preparing a staff-written weekly column. For example, a column titled "Teachers' Corner" or "School Visitor" with teachers invited to contribute short pieces on innovative classroom practices would serve to keep parents aware of what is going on in classrooms and serve as a teacher morale booster at the same time.
- Compliment reporters who have done a particularly good job in reporting an educational news event. This can be done through a quick telephone call or a letter to the reporter with a carbon copy to the editor.
- Take reporters into your confidence prior to the break of a major news story and provide as much background as possible. This is particularly appropriate prior to the release of standardized reading test scores.
- Every school district should develop a board-adopted, planned public information policy under which all employees work with their peers.

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How To Shine in the Worst Crisis

BY EDWARD T. RANCIC
Superintendent, Palos Heights School District 128, Palos Heights, Illinois

The public has a right to know what takes place in a public school system. But sometimes, this right can interfere with an individual's right to privacy or can impinge on sensitive legal proceedings. As administrators, we want to avoid public criticism and lawsuits. Therefore, we should consider carefully what to report to the media.

Two years ago, my district became the focus of intense media attention. In separate incidents during the

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continued from page 40

same school year, two staff members were charged with sexually abusing youngsters. Under such conditions, dealing with the press can be frustrating, but challenging. What I learned can help you.

The first incident of abuse involved a teacher/coach who, under the guise of checking for a hernia, fondled his student athletes. Several courageous boys brought the matter to the attention of the principal who began an investigation.

Charges such as these put a teacher's reputation at stake. One must be sure students aren't seeking revenge because they dislike a teacher.

After several hours of speaking with these students and their parents, I determined there was enough evidence to report the matter to the local Department of Children and Family Services.

During the investigation, I called the teacher in to respond to the charges. He exercised his Fifth Amendment rights and was immediately suspended with pay.

The Department of Children and Family Services talked to other students, parents, graduates, and staff. They concluded the students were, in fact, sexually abused by the teacher in question. The state's attorney and local police were brought into the investigation, which triggered a media frenzy.

At this point, the district lost most of its control over the situation. The story covered the front pages of all local newspapers, was broadcast on the radio hourly, and became the lead story for the evening television newscast.

The questioning by parents and reporters seemed endless. Some people were sympathetic; some brutal. But our problem was that we had such little time to prepare ourselves for the onslaught.

At the next board meeting, we discussed how to answer the questions we knew would continue to arise from the press and from parents. For example, "How long had this been going on?" and "Are there more teachers in school like him?"

These questions were difficult to answer because school officials had been ordered to make no comments about the case.

Several months later, the teacher/coach had pleaded guilty to the sexual abuse charges and resigned from the district.

It seemed that everything was returning to normal.

However, three days before closing our doors for the summer, one of our principals was escorted out of his building by the authorities. He was arrested for child abuse and possession of pornographic materials.

Fortunately, the second incident occurred outside the district, and none of our students was involved. But, it still attracted plenty of attention.

Cries of "Fire all the staff and start over" were heard from some of the parents. Another parent suggested we give all remaining staff psychological exams. The press had a field day trying to link the new incident with the old one.

A camera crew and a large contingent of parents showed up at the next board meeting. The anticipation of what might happen was almost too much to bear. The packed board room listened attentively to our attorney discuss the pending case.

Much to my surprise, most of the parents were sympathetic and supportive, not able to comprehend how this could happen a second time in such a small district. (We have 650 students and 50 teachers.) The positive reaction from the parents gave me the strength to struggle through the ordeal, and once again, start rebuilding the district's public image.

In these two situations which I've described, dealing with the press can be frustrating. Sometimes the press's demand for answers seems more than a superintendent can satisfy.

The guidelines outlined above should help you maintain good working relations with the press during crises. Laying the groundwork now through good public relations practices can help in your district's good times and bad.

If you're fair and honest with the press, they will respond in kind, and in many instances, will go the extra mile to help. They did for our district at a time when we needed to rebuild our image and regain trust in the community.

Good Public Relations Practices

The following 10 guidelines should help when the press calls.

1. **Know the reporter and his or her news organization (newspaper, radio, television station).**
2. **Try to talk to the reporter personally, in your office if possible.**
3. **Assume everything you say to a reporter–even in a sociable situation–may appear in print. When speaking "off the record" be sure you and the reporter have the same understanding of that term.**
4. **Be cautious of humorous responses–they usually sound funnier than they read.**
5. **Be sure you understand the reporter's question, and the reporter understands your answer. Do not assume the reporter is well informed on the subject being discussed.**
6. **Use uncomplicated language rather than technical terms.**
7. **Maintain good press relations year round, not just during a crisis.**
8. **Work from notes. This practice helps ensure that your answers are consistent among reporters.**
9. **Designate one spokesperson for the district. Again, this will help with the consistency of responses to the press.**
10. **Be honest with the press. Don't ignore their calls.**

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Try these six strategies for handling the Fourth Estate

BY ROBERT J. DARIA

THE PRESS: No other institution has such power to make or break your school system's reputation with the community—and, in turn, to determine the degree of public support your schools receive. It almost goes without saying: Good relations with the press are an essential element of your success as a school executive.

Unfortunately, too many good school systems become the targets of a critical press, and administrators are at a loss to salvage their schools' reputations. It needn't be that way: By getting to know your reporters and understanding their needs, you can build a fair and productive relationship with the press. In the Southern Regional High School District (7-12; enr.: 2,500) of Ocean County, New Jersey, I've worked to do just that.

When I arrived five years ago, the local newspaper—known to the board as the "fishwrapper"—was doing the school system real harm. News articles made it appear as if the classrooms were filled with juvenile delinquents and taught by incompetent teachers, who in turn were hired by a crazy board. Of course, none of this was true. We had a good school system with good teachers and a caring and concerned board. We just couldn't convince reporters of that.

After a good, hard look at our press coverage, I developed a strategy to turn the situation around. My board thought the task impossible, and I admit it took time and hard work before we saw any change. But change we've seen. It took a willingness to help reporters do their job—by providing them with the information they need to write their stories and by insisting on accuracy and fairness.

Switch roles a moment: You're a reporter assigned to cover a school board meeting. You must collect the facts and write your story by an 11 p.m. deadline. Your paycheck is at stake. You come to the meeting with only a vague idea of the issues being discussed and even less familiarity with the facts. After attempting to take accurate notes, you approach school officials to clear up some questions for you. One tells you he's busy. Another says, "No comment." A third complains about an article in your newspaper. How fair and accurate a story do you think you'll be able to write?

To guarantee good coverage, you must understand the nature of the beast: Generally speaking, reporters are not mean-spirited people who are out to get you. They're professionals whose job is to gather the news. Their livelihoods depend on their ability to fill columns of newsprint. If you make it difficult for them to do this, their articles are likely to be one-sided and reflect suspicion about your intentions.

Indeed, this reaction is natural to a reporter. To be an effective reporter takes inquisitiveness and a certain degree of skepticism. A reporter's mission is to ferret out the facts, to separate truth from fiction—and that's not always easy to do. Reporters are ignored, insulted, and even lied to by others. Little wonder they tend to doubt what people say.

That's why we school executives must demonstrate to reporters we're not typical bureaucrats or politicians: we're professionals and educators. The key is to dispel any preconceptions or biases reporters harbor. On the basis of my experience, here are six strategies for establishing a healthy working relationship with the Fourth Estate:

1. *Let reporters get to know you.* It's exceedingly important that reporters understand your motivations and honest concern for children. They need to know you're a good person. They need to be reminded you're only human—as capable of making mistakes as the next person. Such understanding makes them more likely to forgive your mistakes and look at the intentions behind your actions.

Take time to talk to reporters. Let them know about your experiences, your accomplishments and failures, your goals for the school system, and even a little about your personal life. If you're new to the community, take time to visit local newspapers and television stations. Meet reporters on their turf. You'll send a clear signal that you understand and appreciate the role of the news media.

2. *Take time with reporters.* Don't be afraid to invite reporters into the schools. They write more accurate stories if they know your schools and kids and if they understand what today's education is all about. When new reporters are assigned to my school system, I personally escort them around—taking as much time as necessary to fill them in on the background of the school and its mission.

I also take time to explain the history behind issues that come before the board. I don't want reporters writing a story based on accusations, unsupported claims, and vague references to the consequences of decisions. I want them to know the facts so they can discern what information is important and relevant to a story. Context is essential for accurate reporting, and only you can provide it from your unique perspective.

3. *Set ground rules.* Establish early on whether your reporters will accept "off the record" remarks. If they will, you can feel safe providing them all the facts—and when I say all, I do mean all. To maintain trust, you cannot afford to hold anything back when they agree not to use it. A reporter cannot be certain of your motivations or the context of what they're reporting unless they have all the facts.

I tell reporters that as long as this code of journalism is upheld, they will have access to all the information at my disposal (within the limits prescribed by law or ethics). I realize that's risky. But I believe it's worth it, in the long run. Just remember: You must be the one who says when you are going off the record and when you're back on. If you don't, you might find all your remarks in the morning papers.

If reporters prefer to keep everything on the record, that's fine. Just be certain you're careful about your comments—without giving the impression you're gunshy. You're entitled to your opinion, but

(Please turn to page 29.)

Robert J. Daria is superintendent of the Southern Regional High School District of Ocean County, N.J.

The Fourth Estate

(Continued from page 26.)

keep in mind the possible interpretations by the public.

4. *Open your buildings.* Notify reporters by mail or by telephone of all activities scheduled in the school system. We assist reporters by helping them set up appointments with teachers or students they want to interview, and we help in arranging for photographs. If reporters wish to attend a class activity in one of our schools, someone meets them at the door and escorts them to the site.

Try to open your records to reporters. When budget time comes around, take time to walk them through the figures step by step, item by item. Go out of your way to make the gathering of information as simple as possible. Whether reporters decide to cover an event is their choice. In Ocean County, we make no demands, nor do we criticize reporters if they fail to cover a story or report facts as we see them. Our reporters appreciate this approach, and we see their attitude reflected in the kind of stories they write.

5. *Avoid the phrase, "No comment."* These words don't sit well with reporters. In their minds, refusing to discuss an issue suggests you have something to hide. If you can't comment, explain why. A reporter will understand if you are bound to confidentiality regarding personnel issues or contract negotiations. If the reporter agrees, explain the matter off the record to prove nothing improper is going on. Don't get defensive, and don't take offense at a question that seems to cast doubt on your intentions. Any reporter worth his salt must ask tough questions.

6. *Show your appreciation.* Reporters are working people who have a job to do. Like anyone, they respond favorably to praise. Say "Thank you" when they've done a good job, or express your appreciation through a letter to the editor. Recently, we organized a Media Appreciation Day, where reporters attended a buffet brunch in our school and received a certificate of appreciation.

Such advice makes good press relations sound easy. But despite your best efforts, your relationship with the press can sour. Sometimes, nothing can convince a reporter he's being unfair. We've quietly shut out intransigent reporters from our schools—giving the good stories to the competition until the reporter or editor got the message. I'm not suggesting you should expect public relations fluff from the news media. Understand that reporters are going to write about controversies that might make you look bad. All you can ask is that their coverage be fair. So far, we've been able to work out an equitable compromise with our reporters.

It's taken time and effort, but now the members of the Ocean County press are what you'd call "friendly," if indeed not totally supportive. They know we're honest with them, that we hide nothing, and that some good is being done in our schools. Fact is, we have a strong symbiotic relationship: Reporters need stories, and we've got plenty. We need positive coverage, and reporters provide it because we have good things going on in our schools. It's exactly the kind of relationship the press and the schools should have. And all it took was understanding what the press is all about. ■

How do you rate this article? Please turn to the reply card facing page 28 and circle 199 if you think it's excellent, 200 if you think it's good, and 201 if you think it's poor. Thanks.

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East Texas School Study Council, Winter, 1986.

Educators: Does Your School District Have a Policy on School-Press Relations?

Dick Gorton and Maxine Newsome

The educational literature clearly points to the need for comprehensive policy statements to guide practice within both school and news organizations. For example, Bitter stresses the importance of guidelines for school administrators when he states:

> School officials can expect to have frequent dealings with the news media, and should be prepared to both generate positive news as well as be able to quickly and intelligently respond to queries from news gatherers. In this respect, the first thing a school system should do is establish a public policy.[1]

But to what extent have school districts developed such policies? And how adequate are they?

To shed some light on these questions, we initiated a study, the first step of which was to develop a policy-submittal form based on a review of the literature. Because of concern about self-reporting research, it was decided to request actual copies of the policy statements rather than asking the respondents if they had a policy and what it included. (A limited number of self-reporting questions were asked of the respondents, however, such as who had been involved in the development of the policy.) The policy-submittal form was sent to a twenty percent random sample of Wisconsin school districts and news organizations, the latter being included for comparison purposes. Seventy-eight percent of the school districts and sixty percent of the news agencies submitted useable information regarding their policies (or the lack thereof) on school-press relations.

Policy, Policy, Who Has the Policy?

Not many school districts or news organizations do, according to our findings! Table 1 shows the percentage of districts and news organizations that had policies on school-press relations, and who had authored and had been involved in developing those policies.

Of the requests for policies, about 60 percent of the 88 school districts sampled either did not respond or had no policy. Of the minority of those school districts which did respond positively,

formal policies were predominant. In response to the question about authorship of the policies submitted, more than half of the respondents identified no authors. In only approximately one out of four instances were school board members or the superintendent listed as authors. For a fourth of the policies, other authors were mentioned, such as previous administrators or the National School Board Association. Furthermore, only five of the 35 policies submitted mentioned involvement by other people, such as board members and superintendents. In only one instance was the principal — who is most likely to be implementing the policy — mentioned specifically as being involved in its development. (It should be emphasized that we are not implying that principals should be involved in *deciding* policy, but that their ideas might be helpful in developing a policy and giving them a sense of "ownership.")

Table 1

Policies on School-Press Relations

Categories of Analysis	Type of Response (Figures are Percentages)			
Policy Response by Superintendents	No Response 21.6	No Policy 18.6	Informal Policy 14.8	Formal Policy 25.0
Authors of the School Districts' Policies	No Authors Identified 51.4	Board Members or Superintendents 23.7		Various Others 24.9
Additional Contributors to Development of the Policies	No Others Identified 85.7	Principals 2.9		Various Others 11.4
Policy Response by Media Editors	No Response 41.0	No Policy 32.9	Informal Policy 24.7	Formal Policy 1.4
Authors of News Organizations Policies	No Authors Identified 73.6	Editors 21.1		Various Others 5.3
Additional Contributors to Development of the Policies	No Others Identified 78.9	Reporters 21.1		Various Others 0

When one examines Table 1 for the responses of the news organizations, it can be seen that nearly three-fourths of the news agencies sampled either did not respond to our request for a copy of their policy on school-press relations or else stated that they had no policy. Of those who indicated that they operated on the basis of some type of policy, in all but one case the policy consisted of little more than short, informal statements, lacking in specificity, scope, and focus. When asked to identify the authorship of the policy and those involved in its development, approximately three-fourths of the respondents didn't identify *any* author (editors were most frequently identified by the remaining respondents), and almost 80 percent didn't identify any others who were involved in the development of the policy.

Table 2

Extent of Coverage of School Districts' Policies

Category Analysis (Figures are Percentages) Not Mentioned	Some Discussion	Comprehensive Guidelines	Categories of Analysis
40.0	48.6	11.4	Policies specify principal's role in working with the press.
31.4	54.3	14.3	Policies have a philosophy for school news reporting.
25.7	60.0	14.3	Policies specify goals and objectives for school news reporting.
34.3	40.0	25.7	Policies specify systematic procedures for school news reporting.
40.0	42.9	17.1	Policies specify criteria for what constitutes educational news content.

What's in These Policies, Anyway?

Table 2 presents the results of a content analysis of submitted school district policies on school-press relations as to the extent of inclusion in the policies of certain elements recommended in the educational literature.

An analysis of the policies submitted by school districts revealed that in 40 percent of the cases there was *no* mention of the principal's role in regard to news reporting. Also, and perhaps more serious from a district perspective, more than two-thirds of the policies either did not mention or barely mentioned school district philosophy or goals and objectives for news reporting. In addition, most policies either did not mention or barely mentioned criteria for determining educational news content, nor did they specify systematic procedures for school news reporting. Moreover, only a small minority of school districts, ranging from 11.4 to 25.7 percent, had comprehensive, definitive guidelines for any of the policy elements recommended by the educational literature.

The results of a content analysis of submitted news organizations' policies on school-press relations are presented in Table 3.

Table 3 raises the possibility that news organizations are in even worse shape than school districts so far as the presence of comprehensive policies on school-press relations are concerned. For example, about 90 percent of the policies submitted by the news organizations either failed

Table 3

Extent of Coverage of News Organizations' Policies

Categories of Analysis	Category Analysis (Figures are Percentages) Not Mentioned	Some Discussion	Comprehensive Guidelines
Policies specify reporter's role in working with schools.	42.1	47.4	10.5
Policies have a philosophy for school news reporting.	42.1	42.1	15.8
Policies specify goals and objectives for school news reporting.	15.8	57.9	26.3
Policies specify systematic procedures for school news reporting.	52.7	36.8	10.5
Policies specify criteria for what constitutes educational news.	57.9	31.6	10.5

to mention or barely mentioned the role of the reporter in working with the schools. In addition, most policies contained no systematic procedure for school news reporting nor criteria for determining what constitutes educational news. Also, most policies submitted by news organizations either did not mention or barely mentioned a philosophy or goals and objectives for school news reporting.

Conclusions and Recommendations

It needs to be emphasized that caution should be used in generalizing the results of our study. However, the data do raise serious doubts about the extent to which many, if not most, school districts and news organizations have developed comprehensive, definitive policies on school-press relations. (It should be noted that a minority of school districts and news organizations had developed excellent policies.)

If most school districts and news organizations have neglected to develop such policies, it would indeed be unfortunate, in our judgment. School-press relations are too important to be left to the predispositions and inclinations of individual administrators and reporters. Carefully developed policies can be used to state the importance of and approach that an organization wants to emphasize in school-press relations. Policies can also be used to provide direction and a basis for evaluating the members of the organization. To be useful, school-press policies should include definitive statements about the role of the principal and the reporter in working with each other; the philosophy and goals and objectives of the school district or news organization regarding school news reporting; criteria for what constitutes educational news content from the perspective of the school district and from the vantage point of the news organization; and the policies should specify systematic procedures for school news reporting by the educator as well as the press. Once developed, the leadership of the organization should take the initiative to provide orientation to the users of the policies and should provide monitoring and periodic evaluation of their use.

Comprehensive, definitive policies on school-press relations won't ensure a positive relationship between school administrators and the press. However, their absence may impair the relationship. Certainly, the findings from this study suggest that many, if not most school and news media organizations have a long way to go in developing such policies.

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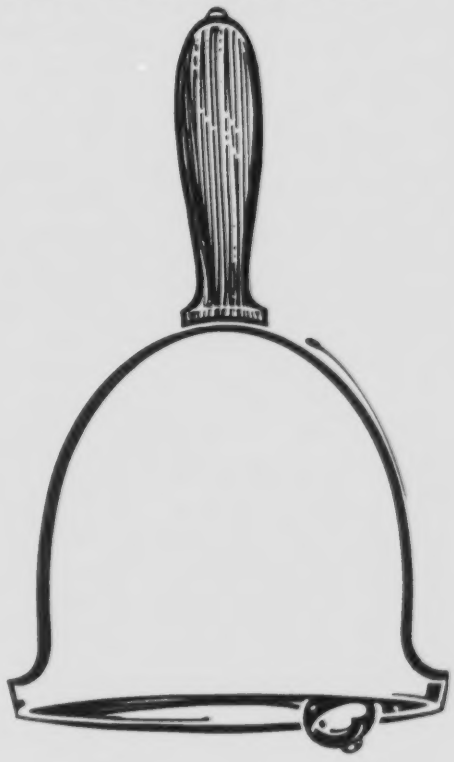
Maxine Newsome is Director of Elementary Education in the Wauwatosa School District (Wisconsin). The article is based on Dr. Newsom's dissertation which Dr. Gorton directed.



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Involve The Community To Approve The Budget

Richard Bamburger

The headlines read, "Schodack Central has Largest Tax Levy Hike in County," and "Schodack Taxpayers' Group: Defeat School Budget." Faced with these problems, the Schodack Central School District, a small K-12 school system near Albany, New York, experienced two years of budget defeats. For both those years the school board adopted contingency budgets and was successful in having all propositions passed during the first year. For the second year the district scheduled a total of four budget votes before interscholastic athletics were approved. Several areas not included in the contingent budget never did receive approval that year.

The reasons for the budget defeats were clearly apparent to everyone: a large increase in tax levy during the same year that the county moved to full value assessment from fractional assessment. These factors created a spirit of distrust and animosity in the school district which had in the past experienced generally good support for budgets and the educational system.

In an attempt to alleviate the crisis, the Board of Education during the fall of 1981 decided on a massive involvement of the community in the preparation of the 1982-83 school budget. A subcommittee of the board was formed to develop ideas for community involvement. After studying many budget plans of large school districts, and city school districts throughout New York State which involved the community, the subcommittee presented a very elaborate program to the school administration for its reaction. The administration reacted positively, but believed the demands imposed upon it by a very elaborate, time-consuming process would be counterproductive to the operation of the school district. Working together, the administration proposed an alternate plan consisting of two large committees. One was a budget preparation committee and the other was a budget promotion committee. The budget preparation committee would be composed of three subcommittees, one each to study each of the three schools in the

district. The budget promotion committee had four subcommittees concerned with public relations, research, organizational contacts, and recruitment.

Procedures for the budget preparation subcommittee are listed below.

1. Each subcommittee will have its first meeting in December to set its goals and set its time lines. The principal of each school will call the first subcommittee meeting.
2. One person will be elected chairperson of the subcommittee, and one person will be elected recorder of the subcommittee.
3. Each subcommittee will have the opportunity of examining the principal's budget and its preparation. Each subcommittee will develop a budget including both prioritized recommendations for cutting the present program and prioritized recommendations for additional spending beyond the present program.
4. Recommendations from the budget preparation subcommittees should be given to the superintendent no later than Monday, March 1, 1982.
5. Three persons from each subcommittee will be selected by the subcommittee to sit with the board of education when it works on the 1982-83 budget. These people will be selected from teacher, parent, public, and student representatives.

When the superintendent received the recommendations from the three subcommittees on March 1, he sent them together with his own prioritized list of recommendations from those subcommittees to the board of education members. Each of the recommendations for additions and subtractions from the program were included in the superintendent's report. He was able, however, to pass on his recommendations by providing his own list of prioritized recommendations for additions and deletions to the school program.

During the budget process as the board worked on the budget during the months of March and April, the recommendations from the subcommittees and the superintendent were taken very seriously. The recommendations or a variation thereof were adopted by the board of education in the final budget.

Procedures for the budget promotion committee are as follows:

1. The budget promotion committee will have its first meeting in January 1982. The board member will serve as chairperson of this committee. The chairperson of the committee, the administrative representative, and the four subcommittee chairpersons will develop campaign strategies and time.
2. The public relations subcommittee will determine the format of the popular budget, develop materials for budget presentations, determine the type and kind of news releases and other written materials.
3. The research subcommittee will work with the district office to get answers and explanations for any and all questions which may arise from the budget promotion process. It will also provide demographic information as needed and analysis of that information.
4. The organizational contacts subcommittee will set up meetings with as many local organizations as possible after the board adopts a budget and will provide for appropriate speakers concerning the 1982-83 budget.
5. The recruitment subcommittee will actively seek out people in the community who would be available to work on the budget promotion process, particularly people to work on a telephone campaign and to provide transportation on the day of the budget vote.
6. Each subcommittee chairperson will sit with the board of education when it works on the 1982-83 budget.

The budget promotion committee became a most important committee during the spring of 1982. The public relations subcommittee developed a slide/tape presentation based on the educational program of the district. The chairperson of this subcommittee was a professional public relations person from the community, and using the ideas and material fr[om] the school district, produced a very professio[nal] product for dissemination in our community.

The chairperson of the organizational contacts subcommittee set up a series of meetings with almost all of the organizations in our community prior to the budget vote. Members of the board of education and the superintendent attended these meetings showing the slide/tape presentation first and then passing out copies of the proposed budget and answering questions from the members of the organizations concerning that budget. The reception of these presentations was excellent; and many, many misconceptions concerning the school district were addressed and made clear.

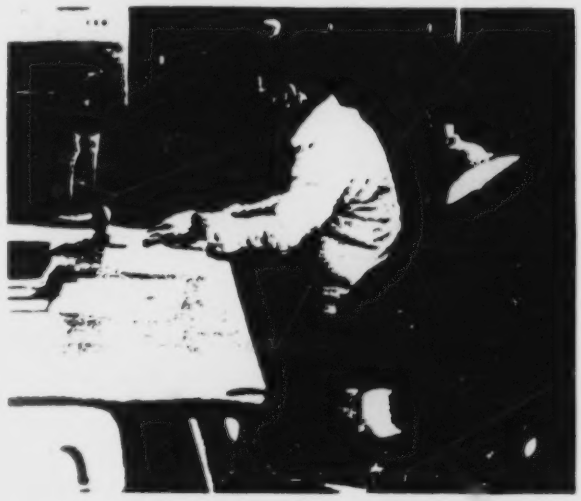
The job of the recruitment subcommittee went into full gear the weekend before the budget vote. People had been lined up to mount a telephone campaign and to provide transportation on the day of the vote. This committee also proved to be a very effective one and was responsible for getting out a very large vote on the budget in June. The results came on June 2 as community residents approved the 1982-83 budget, 594-378. The board of education's approach to the development of the budget for 1982-83 had been successful.

Before beginning the process of the budg[et] preparation subcommittees, board members, a[nd] administrators both recognized the possibility of alienating a large number of people in our

community who might try to sabotage the process by having an axe to grind and misinterpreting what happened in the subcommittee meetings. While we did have several people who became critical of certain elements of the school district, by and large most of the members of the subcommittees learned a tremendous amount about their public school system. In fact, most of these people attended the board meetings at which the budget was worked on and at the end of the process thanked the board publicly for its vote of trust in involving the public in such an undertaking. At the end of the process the school district had 18 community members who had worked on budget preparation committees and who were very well informed concerning the educational system in the district. Information concerning standardized test results, the exact job functions of persons working in each of the three schools, information about state laws and mandated programs, and information about costs for pupils, staff, supplies all became part of the public domain as these people examined the budgets for the three schools in great detail. These people, in turn, with their increased knowledge about the schools were able to pass this knowledge on to their friends, relations, and fellow members of organizations in our community. In the dark days of the two budget defeats we maintained our belief that if only we could get public members into our schools, they would see the good educational system which they were supporting. This process affirmed our belief in this concept.

Desiring to improve the process, the board of education scheduled a meeting with the members of both the budget preparation committee and the budget promotion committee to listen to ways of improving the process. The results of that evaluation were very positive, again, with the suggestion that a new subcommittee of the budget preparation committee be formed. This fourth subcommittee would study the district office, the business office, the transportation department, and the buildings and grounds department. The other change which was suggested concerned the word "preparation". Members of the budget preparation committee believed that they were really giving advice. It had been difficult to actually help in the preparation of the total budget. Rather what the committee members had done was to look at the programs in each of the three schools and make recommendations concerning deletions and additions. The result is that the new committee will be called the budget advisory committee and those members will look at the 1982-83 budget and make recommendations concerning the program as it is represented by the present year's budget.

The cycle is under way; Schodack has begun using the system for the second year. We are confident that the process not only helps to pass our budget, but more importantly, provides an educational program for important and interested members of our community about what's going on in the schools.



A committee meeting in progress at Schodack Central School District

There is nothing more notable in Socrates than that he found time, when he was an old man, to learn music and dancing, and thought it time well spent.

-MONTAIGNE

A man doesn't learn to understand anything unless he loves it.

-GOETHE

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Let the sunshine illuminate the school budgeting process

Your school system's budget is a detailed road map of resources and priorities, and it's the reins that control the schools' progress toward desired destinations. Understanding the budget and the budgeting process might give citizens more sympathy for your schools' money needs—and it just might give them a chance to tug on the reins as well.

In what one official has called a "citizen's empowerment" effort, the federal government recently issued *Making Sense of School Budgets: A Citizen's Guide to Local Education Spending*. The 43-page guide aims, it says, "to help citizens understand and control how their money is used in the local public schools."

In clear prose, the guide introduces the reader to typical school budget formats and some variations. It explains accounting terms and how to read budget tables. It distinguishes among the different versions of a budget—proposed, original, revised, estimated—and explains which ones customarily are binding. And it gives citizens advice on how to approach school officials and board members to gain information and influence on the budget.

Don't think this guide was written with your convenience in mind. It's meant to make citizens more knowledgable and effective. In every section, the guide hands the reader some tough questions to ask you and your colleagues. Some questions clarify details about the budget. Others bring underlying policies and assumptions to light. For example: Do increased personnel expenditures reflect more teachers or higher salaries? And what are the allocation formulas used to divide resources among schools?

Making comparisons is one of the best ways to analyze a school budget, the guide says. Citizens should compare current expenditures with those of past years and with the school system's stated priorities. The budget also can be compared with budgets of other school systems, including private and parochial schools. Specific budget items, such as photocopying services, can be compared with the prices at commercial print shops. The guide also suggests budgetary corners—in personnel, maintenance, and capital expenditures—where waste often collects because of careless management.

Don't expect *Making Sense of School Budgets* to be completely evenhanded, either. For example: It advises citizens to examine whether administrator salaries and benefits have grown rapidly or whether—"on the positive side"—the school system is shifting money "toward classroom instruction and with supporting activities being carefully justified in terms of expense, benefit to students, and service to the community."

Similarly, on the prickly topic of school allocation formulas, the guide says school administrators sometimes "try to avoid making the data public" for fear citizens will reject the assumptions behind their budget decisions.

To calm those fears—and get the information—the guide suggests tact: "If the officials you talk to seem to resist answering your questions, you may want to explain, first, that you understand that there can be good reasons for schools to receive unequal resources, and second, that you want the data in order to evaluate for yourself the justification for differences in your district."

The guide doesn't say people should be tactful about using information once they have it, but it does say that citizens who find fault should deal in concrete proposals for improvement—and talk them over with school officials. Proposals should be precise, supported by successful examples elsewhere, and introduced in step with the budget calendar. Changing the school system's priorities usually takes several years, the guide counsels not several board meetings.

These suggestions for citizen involvement in the budget process seem constructive and sound—although we can't resist noting that they come from the largest bureaucracy in the U.S. (We'd like a guide to understanding and controlling the federal budget, please.)

Yes, this guide might raise some unsettling specters—taxpayers probing the school budget for "fat," for example, or parent groups wielding budget figures to oppose administrative decisions. Understanding does bring power, and citizens will not fail to exert it.

But with greater participation should come greater public consent as well—the cornerstone of effective governance. And if the budget's mysteries are unraveled in a context that encourages thorough, long-term, constructive involvement with schools, those advantages should be enough for you to consider handing out a stack of these guides at your next public meeting.

The booklet is available, at $1.75 a copy, from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Ask for stock number 065-000-00382-1.

SECTION 3

COMMUNITY DEVELOPMENT and COMMUNITY INVOLVEMENT in Budget and Non-Budget Issues

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IMPROVING SCHOOL COMMUNITY RELATIONS:

A PROGRAMMATIC MODEL

by Constance D. Cooper

How often do educators complain about the lack of success they have in getting parent or community "participation" in school events. "I had a party and no one came" is the sad refrain following many an open house, parent-teacher conference day, or the monthly P. T. A. meeting. On the other hand poor test scores, declining enrollment leading to school closings, or the elimination of athletic programs due to lack of funds may often lead to more community demands for involvement in the decision-making process in the schools than is rational, feasible or legally possible. Too often educators find themselves involved in a crisis before they discover that it is fallacious to assume that "parents and other members of the community aren't interested in the schools." Maybe there was another reason why the attendance was small at the open house? Maybe there is something that the school was doing, or not doing, which was responsible for all those no-shows at the Spring Festival? Is it possible that some parents may prefer a relaxing evening watching TV after a hard days work in lieu of attending the monthly P. T. A. meeting to be told what they can do to help the school, or come to a Parent Teacher Conference only to hear again what is wrong with their child(ren) and not permitted to express some ideas about what they think is "wrong with their school?"

Research has shown that participation in the school is directly related to parent attitudes and behavior.[1] Given this data, the development of a school-community relations program which effectively stimulates community involvement and participation and provides for two-way feedback

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and communications linkages is one of the most essential tasks of an administrator. The question is what can an administrator do to accomplish this goal. First, there must be an acceptance of the fact that unless there is a crisis directly affecting their child or their personal interests, some parents and members of the community will *never* be seen or heard from directly! However, they will be aware of what is going on in the school and the feedback from them will be indirect, but it will be there. In some cases, it may be evidenced by a yes vote the next time a school tax referendum appears on the ballot.

Secondly, the administrator must recognize that some teachers feel threatened by members of the community and some community members stay away from the schools because they feel threatened by the staff. Therefore, one component of the school-community relations program must be the development of mutual respect by the two groups for the other. Staff must understand that there are significant contributions the community can make to the school and the community must be aware of the unique skills and knowledge their school staff possesses which makes it the single most essential resource in educating youth. While individual capabilities and styles may vary, a teacher is one of the most essential members of our society. The administrator must provide opportunities for interaction between staff and community which allow for the development of feelings of respect, acceptance and trust if an environment conducive to the development of an effective community involvement program is to be affected.

Components of an effective school community relations program should include the following:

1. An informative communications organ that is published and distributed on a regular basis. This may be a simple school newsletter or a more formal printed newspaper. In Consolidated School District No. 65 in Evanston, Illinois, an outstanding newspaper entitled *65 In Action* is published and distributed to all members in the community by mail six times a year. The paper includes information about local, state, and national education and, the sure fire attention getter, news about student activities in the individual schools in the District with pictures. The key to the success of this newspaper is the key to the success of any form of written communication from a school or district. It must include information that the people "want" to know as well as that which they "need" to know.

2. Development of a demographic profile and a map of the community. The demographic profile will provide data about the resources to be found in the community. The data can be collected by mail or through questionnaires sent home with students, however, if possible a door to door census would be more reliable and beneficial to the development of communications between the school and its community.

3. Use of student oriented activities to establish initial contacts with parents as one means of identifying persons to serve on an advisory board or council. All administrators know that some parents will only come to the school for an activity in which their children are involved, e. g., Spring Festival, basketball game, art exhibit, Christmas Play, etc. Organization and planning are key here. Determine what specific role the Advisory Board is to play. Is it to be a communications link only or do you want to have actual community input into the decision-making process. The specific perimeters of the group's participation in the school, their specific role and function must be clearly defined for them and for the staff when the committee is first brought together. The composition of the group is most important. Do not limit it to parents. Members of the community financially support the schools and should be involved as advisory board members. Key staff members and students should also be members. One of the major responsibilities of the board would be assisting the administrator in devising and implementing strategies to broaden community knowledge of school affairs and increase community participation in the school. Meetings should be regular and the members must feel that they are making a valid, meaningful contribution or they will not continue their involvement. The administrator must make them feel that their input is listened to, respected, and that it has impact for the venture to be a success.

Some of the strategies which administrators might employ to further increase community involvement and participation are:

1. Have teachers telephone parents to talk about the school and coming events with no allusions to any problems related to the school or the parent's child.

2. Invite members from the community to speak to individual classes or assemblies about their careers, travel, hobbies, or unique experiences.

3. Have each student write a personal letter to their parent(s) or guardian(s) telling them about the school and how their personal participation will help improve the learning environment at the school or inviting them to attend co-curricular events.

4. Contact senior citizen retirees and invite them to school to be speakers or assist in individual classrooms to enable teachers to provide more individualized instruction.

5. Establish an "open-door" program and invite members of community to come to school to observe classes. The number of visitors to a classroom at any time and the number of days this would be done would have to be closely monitored originally, however, after a while both teachers and students tend to ignore visitors. In all cases, visitors would be scheduled through the office and would never go anywhere in the building without first coming to the office and would never go anywhere in the building without first coming to the office and officially registering and being escorted to the classroom.

6. Involve community members in developing program for orientating staff to the school community. This could include a bus tour with community members as tour guides.

7. Printing a community map showing businesses, service organizations and agencies, recreational facilities, and other points of interest in cooperation with local businesses who would be asked to provide the funding to cover the cost. The map could be distributed by the schools, agencies, and businesses and would include a calendar of school sponsored events for the year.

8. Establish contact with local newspaper staff(s) and submit articles regularly. Newspapers frequently need fill ins and if an article is timely and available, it will probably be published.

9. Television and radio are interested in school news. Try to get a regularly scheduled time segment for your school or district. If this isn't possible, aim for appearances on talk shows or news programs to publicize coming events, share information, or showcase achievements of staff, students, or the school. As often as possible, use community members as your spokespersons.

10. Offer co-curricular programs for adults after school. Weight-watching, exercise, literature, crafts, board and table games, and recreational classes are highly appealing, can be run by volunteers, and will develop the image of your school as a school for the community.

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Sacred cows make great hamburgers.
—Robert Reisner

Cast a Wide Net

Reel in school supporters among nonparents and senior citizens

BY ELLEN H. HENDERSON

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PERSUADING ADULTS who aren't parents to get involved in your schools might seem a low-percentage proposition. But if you can get them involved, schools have a lot to gain. Unfortunately, "nonparents"—whom I define as adults without school-age children—are tough to reach. Unlike the parents of school-children, nonparents rarely list their names, addresses, and telephone numbers with your schools.

Even when such information is available, your school staff members might hesitate to try involving nonparents, believing that these adults won't take an interest in education except in the case of a tax hike or a bond issue. But if your school system makes excuses instead of plans to describe your successes and explain your needs to nonparents, you're paying a dear price—and so are the children of your community.

With some 75 percent of the U.S. population not having school-age children, schools must plan for vigorous action. We must find creative, effective ways to tell community members why their continued personal and financial support of schools helps them in the long run.

Many school systems have experience in involving senior citizens and, increasingly, the parents of children too young to enter school. But every community also has many nonparents at other life stages: young single adults who are just out of school and have no children, young married adults who haven't had children, and middle-age adults who have no children or whose children have finished school. Ways can be found to involve all these groups in your schools.

Adults with preschoolers

For many new mothers, the time spent in the hospital after giving birth is full of excitement and good intentions. It's important for schools to make contact with new parents right from the start.

Consider this: Three hospitals in the metropolitan area of Columbia, S.C., deliver approximately 7,500 babies each year. Many of these 7,500 children will be entering one of the five area school systems in five years. If you were on the board of one of those school systems, what might you do for these new parents to generate goodwill?

For a start, you could create a joint publication with the other four school systems to provide tips on being a good parent and descriptions of early childhood programs, special education testing, and other elements common to all the school systems.

Second, you could start an annual mailing to these parents. Ask the hospital to print four sets of address labels, and then send an age-appropriate newsletter about being a parent to this group once a year.

Look, too, at the day-care centers and private preschool programs in your area. They give you built-in opportunities for communication with new parents. You could arrange to conduct special sessions led by school psychologists, speech therapists, and early childhood specialists.

In South Carolina, educators increasingly recognize the importance of classes on being good parents and early childhood programs—especially programs for the developmentally disadvantaged. Ideas on what makes good parents vary widely, but schools can do much to help preschool parents learn coping skills. Don't expect parents to ask for these classes, though. You'll grow old waiting. You must target those who need such skills and work with community partners who can help you reach these groups.

And you won't reach them by scheduling all your programs at schools, I might add. You have to go where people are—often to churches or community centers in rural settings, workplaces in industrial areas, and housing developments in inner cities.

Seniors

Many school people have a negative image of senior citizens, and that's too bad, because public relations research verifies that these people in particular support the institutions they understand.

As of 1983, the U.S. had more people older than 65 than it had teenagers. In addition, the Baby Boom generation—some 70 million strong—will reach senior citizen status early in the next century. These demographic changes make it essential to involve senior citizens in education affairs.

Providing special passes for senior citizens is not a new idea, but it's effective. In my local school system, Golden Passes provide free admission for citizens 65 and older to any athletic or cultural school event. The passes also allow senior citizens to eat lunch in school cafeterias, paying just $1.75 for a nutritious meal. Because the cards have color photos, the passes also serve as identification for those who no longer have drivers' licenses.

The five school systems in metropolitan Columbia have agreed to honor one another's Golden Passes. The cost of the program is small compared to the goodwill it generates. Some school systems also offer a modest discount on community education classes to Golden Pass holders.

Here's another idea: Picture an older gentle-man surrounded by four or five eager nine-year-olds. He's gently placing a pair of glasses smeared with Vaseline on a boy and saying, "Tell them how things look." As part of a joint venture between the school system and a senior citizen program at the recreation center, the man is illustrating how degenerative eye diseases, such as glaucoma and cataracts, affect an older person's vision. Called Project LOVE (for Let Older Volunteers Educate), the program brings senior citizens in regular contact with third graders throughout the year. It

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operates in three elementary schools, with concrete benefits for children and adults alike.

Not all senior citizens belong to organized activities through a recreation center or church, but enough do so that your school system probably can call on one of these groups to help you open communications with senior citizens.

Single adults and DINKS

Now, for the hard part--reaching young single adults and the childless working couples the pundits have dubbed DINKS, for "double income, no kids." Both groups are taxpayers and might be influential community leaders.

Although some of these people will be newcomers to your community, others will have gone to school there. You can reach young alumni by setting up a table at their fifth and tenth-year high school reunions—to recruit volunteers for activities such as tutoring, coaching, and mentoring. You'll be surprised how many 28-year-olds have a strong sense of nostalgia and an eagerness to help youngsters.

With good public relations, you can be fairly sure to reach many of the younger people spread throughout your community. When designing a public relations plan, remember the old sales adage: Sales promotion doesn't sell, salesmen do. Your plan should be balanced between written communications and listening and talking with the people you're trying to reach.

Single adults and DINKS read newspapers, listen to the radio, watch television, drive by schools, live in apartments and subdivisions, attend religious services, and buy property. They're corporate employees, ministers, real estate agents. Many of them belong to a chamber of commerce, a church, a professional organization, or a farm bureau. Your public relations plan should have components that target all such groups.

You can use your mailings to invite younger people to volunteer as individuals or to join in larger partnerships with local schools. Don't be discouraged if these people have little time to offer. Even if you involve them only minimally the first year, working with school kids is habit-forming—you might well hook some volunteers for life.

To cast your net even farther in a bustling city, town, or suburb, use the marquees that abound at restaurants and other businesses. From time to time, if you've established good contacts, these can carry messages about your schools. And don't forget marquees at your own schools. As a matter of fact, even a well-kept school exterior can send a subliminal but significant message to those who merely drive by.

Reaching nonparents takes more than money; it also requires effort by your entire school staff. And that's where you as a board member come in. Your board must provide adequate staff and financial resources, but you also must make this communication a high priority.

You know full well a school system can't move forward unless it enjoys community support. You can't provide for the educational needs of your students without a sufficient tax base. And you won't get the tax support you need until everyone in your community understands your schools.

You can make sure the administrative staff develops a plan to make that happen. You can request an annual update on the schools' public relations effort. But in the last analysis, it's up to you as a board member to raise your schools' commitment to building broad-based understanding for education throughout your community. SB

Pullouts

(Continued from page 26.)

pullout programs hope the idea of sending specialists into the classroom will prove less disruptive than pulling children out.

Such proposals, however, seem unlikely to stem the tide of increased use of pullout programs. Despite calls for change, many of the teachers we surveyed are ambivalent about the erosion of the self-contained classroom, apparently sharing the view that at least some curricular specialization is desirable and appropriate. Approximately two-thirds of the teachers in our study agreed that, despite the scheduling problems and need for reteaching lessons, remedial pullout programs offer a better environment and more appropriate instruction than the regular classroom. Almost as many felt the same way about enrichment programs.

Other forces also are at work in favor of pullout programs. A bureaucracy by its nature seeks to heighten worker productivity, and ever finer divisions of labor have been thought to accomplish that. Similarly, greater specialization among teachers has seemed to promise greater expertise in the classroom. Moreover, the new specialists themselves soon become advocates for the further expansion of pullout programs.

So, over the years, many elementary schools have added pullout programs and specialists, in the process moving increasingly toward the kind of structure that reformers currently are challenging in high schools. And this drive toward specialization makes the use of pullout programs more likely to increase than decline. Administrators struggling to fit technical subjects, such as computer literacy, into the curriculum are succumbing to the temptation to use pullout arrangements. Other forces also are at work, including the growing presence of specialists in elementary schools.

The fact is, the elementary school already is well on its way to becoming as specialized as the high school. For instance, one Long Island school we know has 24 classroom teachers and 22 specialists.

So the question arises: Is the current trend toward more specialization and increased use of pullout programs what's best for your elementary schools? The issue deserves your attention. Although some see merit in providing special programs for students, others believe our schools are running the risk of departmentalizing the elementary school and destroying the close relationship between teacher and student—an alienation that already exists in many high schools and might well lie at the core of the high school's problems.

Equally disturbing, the increased use of pullout programs means the continued decline in classroom teachers' skills, in working with a wide range of students and subjects owing to the increasingly narrow range of students and subjects with which they work. The elementary teacher's role already is under attack. Teachers themselves are complicit in the narrowing of their roles as they express self-doubts about their ability to teach all children.

What's occurring in our elementary schools today is a phenomenon that can't be ignored. Broadly put, the expanding use of pullout programs challenges our traditional concepts of how elementary schools should be organized. Whether that's for good or ill, however, is a question local school boards and school administrators must answer for themselves. So consider well: What kind of elementary schools do you want in your community? SB

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Small communities must help schools compete for teachers

In a recent issue of *The Small School Forum*, two Texas educators suggest some ways in which small school districts can become more effective in competing for good teachers.*

Texas, of course, has large rural areas in common with Illinois and is one of only two states with more school districts than Illinois. Authors Edward H. Seifert and Penny Simone base their suggestions on two assumptions:

1) The small community cares—or can be made to care—about the quality of its public schools.

2) The quality of instruction in a school depends on its teachers.

As a first step in competing for good teachers, therefore, rural school officials must determine the kind of teacher they want to employ. This means establishing a school board policy stating the "ideal characteristics" for teachers to possess, such as the ability to teach students with a wide range of abilities or qualifications to teach in more than one subject area or grade level.

Moreover, a board that wants community support for building an effective faculty will involve citizens in identifying those "ideal characteristics." (A community that is made aware of the qualities that distinguish its teachers is likely to be more supportive of those teachers and the schools in general. Unfortunately, even parents receive very little information about the positive qualities of teachers.)

A second area needing attention is recruitment—and it's another area where community support can play a vital role. Seifert and Simone suggest the following:

- Salaries and fringe benefits need to be competitive, but community support is essential if compensation is to be a truly positive factor. (There is a growing belief that bigger budgets do not buy better education. The small school district has an opportunity to overcome this by showing citizens the relationship between competitive salaries and its ability to attract teachers with "ideal characteristics.")
- School boards can consider various ways to subsidize the education of teachers. This concept is already built into most salary schedules with additional pay in return for additional college credits. With community support, boards also can consider subsidizing other forms of continuing education (e.g., travel or study in distant places) or subsidizing the undergraduate education of outstanding students in return for a commitment to teach in the district for a specified number of years.
- Naturally, school officials must emphasize to prospective teachers the advantages of living (and raising children) in a small town and working in a small school.
- Help the teacher secure affordable housing, perhaps with homes built by vocational education classes or housing provided by the community.
- Provide summer employment for teachers and employment opportunities for teachers' spouses.

The final step in developing an effective small school faculty is to keep good teachers once they've been attracted to the district. Beyond good management practices that make teachers feel productive and part of the team, Seifert and Simone suggest the following:

- Build community support for regular improvements in salaries and extra-duty pay. (This should assume that the teacher merits improvement in compensation; if not, the teacher should not be re-employed. The evaluation process, of course, must protect the teacher from the impact of personal grudges—something not always easy to do in the closely-knit environment of a small town.) It is important, say the authors, to "share the problems of recruitment and maintaining of effective teachers with the community."
- Encourage churches, civic organizations, and other community groups to include teachers in their membership. Teachers must come to feel part of the community, but some small-town groups shun outsiders. That attitude must be overcome.
- Help community groups that want to develop recreational, social, and cultural programs and see that they are available to teachers. If the community can be made a better place to live for everyone, it will be more attractive to teachers—and vice versa.
- The ownership of land encourages permanent residency. Work with landowners and lending agencies in making real estate purchases more readily available to teachers.

Developing an effective faculty for a rural district boils down to knowing what kind of teachers are desired and making faculty development a community effort.

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*Edward H. Seifert and Penny Simone, "Personnel Practices for Recruiting and Keeping Effective Teachers in Smaller Schools." *The Small School Forum*, Winter 1980-81. University of Colorado Department of Education.

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Center for Rural Education and Small Schools, Kansas State University

RURAL SCHOOLS AND THEIR COMMUNITIES: A NEW APPROACH TO COMMUNITY DEVELOPMENT

*Sue Raftery, Ph.D.

Rural America is in the state of transition. As Dillman (1989) suggests, we are leaving an industrial era and embarking on a new "information" era. Telecommunications and information technologies are expanding into rural America. Such technologies are as important to the rural residents of today as rural electrification and highway systems were to rural America of the 1930's. The ability to adapt to this information age will be necessary for successful rural community/economic development activities in the 1990's.

Today, more than at any other time in the history of rural America, there is a need for collaboration among appropriate local institutions and agencies. Mobilizing this collaboration and participation will be the first step. One key institution in rural communities to assist in this mobilization is the school.

What happens in the schools does not occur in a vacuum. Schools effect and are affected by the community of which they are a part (Mulkey, 1989). An important part of either community or economic development is individual capacity building and schools are in the business of expanding individual capacity (Mulkey, 1989; Hobbs, 1988). There is an inherent symbiotic relationship between rural schools and community development. The question remains, how do we call upon the schools and communities to draw upon their individual strengths for the betterment of the community.

The role of the school should remain the provision of educational programs to enhance community vitality. However, a reassessment of the delivery of such programs is needed. It will no longer do to view education as a K-12 phenomenon. Rather this traditional role must be challenged. Schools must become life-long learning centers which offer educational opportunities for the entire community, regardless of age.

It is accepted by educators and the public alike that we must come to grips with the problems of illiteracy and school drop-out rates. For instance, in a recent study of the South it was found that this region still has a disproportionate share of high school drop-outs (38.8%) and a high functional illiteracy rate (20%+) (Beaulieu, 1989). By helping adults get GED's and other work related skills, the adult populous will have more opportunity to increase their quality of life through income enhancement. Increasing rural income and reducing the number of rural poor families, should be as much a part of a strategy for rural school improvement as those strategies whose applications are confined to traditional schooling (Hobbs, 1988).

In addition to widening the delivery of educational programs for adults, the schools must also be challenged to expand the K-12 curriculum to incorporate community studies. Knowledge of the local community is vital to the students if they are to play an active role, as an adult, in that community.

So to, do community development activities require specialized, in-depth knowledge of the local community if a measurable degree of success is to be achieved. Hobbs (1987) reminds us when he stated, "it strains the credibility to believe that rural community development can travel very far on ignorance of the locality, and how it operates."

Rural communities have little hope of having full-time professionals to gather such information. This is where a well conceived student project would result in the collection of local data. Teaching research and analytical skills through language arts, social science, or other appropriate classes

(continued on page 2)

(continued from page 1)

could become part of the curriculum. Implicitly it also dispels the student's myth there is nothing unique about their individual communities. In this instance everyone benefits—both the students and the community.

Entrepreneurial skills could also be integrated into the course offerings and taught to all students regardless of future career aspirations. If approached creatively, such programs could enhance small business development in the local community. Students may in fact see new opportunities, rather than responding to conventional wisdom that one must "move out" of rural America to "move up".

These are but a few innovative ways in which rural schools could adapt curriculum to enhance local community development. All remain within the delivery of educational programs. Conventional, perhaps not; appropriate, to the changing world community, yes.

How rural America responds to the need for development programs will determine the future of rural communities in the 1990's and beyond. Schools must play a role in providing all citizenry with access to both accurate information and training to meet the new challenges. The choices are theirs to make—together. Rural schools and rural communities together, can make a difference.

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Ten Strategies for Making the Connection: Rural Schools and Economic Development

1. Chamber-School Committee Membership
   Appoint educators to Chamber of Commerce committees; appoint business people to school committees. Ask participants occasionally to report to their respective boards on what they are doing.
2. Joint School Board-Chamber Meetings
   Schedule regularly a joint meeting of the School Board and the Chamber of Commerce to share information relevant to economic development.
3. Economic Surveys by School Classes
   Ask high school classes or clubs to conduct community surveys to help determine current economic activities, trends, and projections.
4. Career Awareness Days
   Ask local employers to act as "mentors for a day" for high school students as a means of career exploration.
5. Teacher-Business Exchanges
   Sponsor a one-day "job exchange" program, asking teachers to work in businesses and business people to work in schools, hold a follow-up discussion.
6. Entrepreneurship Education
   Sponsor a class in the high school on starting and operating a small business, with guest speakers from local businesses as an integral part of the instructional plan.
7. School Facilities as Incubators
   Make available under-utilized school facilities as small business incubators. Hire students to provide support services.
8. School-Based Businesses
   Initiate a program that will help students explore, start and operate businesses filling gaps in available local services.
9. Joint Economic Development Planning
   Ask the School Board, County Board, Town Council and Chamber of Commerce to develop a joint area economic development action plan, using the unique strengths and contributions of each partner.
10. Public-Private Partnership for Leadership Development
    Develop a public-private partnership for leadership development, focusing the program on developing local capacity and nurturing local resources that are critical to economic renewal.

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ESTABLISHING PARTNERSHIPS BETWEEN THE BUSINESS COMMUNITY AND RURAL SCHOOLS

An effective way to help develop a strong rural educational program is to establish a business partnership between the rural school and the business community. Once a relationship is set up, the advantages for both the schools and business community could prove beneficial to the entire rural community. For a partnership between a business and a school to work, each party must be willing to define its specific needs and demonstrate a desire to make the partnership work.

What is a school-business partnership?

Generally defined, a partnership is a mutual agreement between a business and a school to establish certain goals, and to construct a reasonable means of achieving those goals. The term "school-business partnership" is distinguished from the "adopt a school" concept by the fact that a true school business partnership is not an inner-city program geared toward helping only disadvantaged students. The present trend of school-business partnerships is focusing on helping to improve the overall educational system and perhaps aid in community development as well.

What kinds of partnerships exist?

The types of partnerships that are formed between a school and a business depend on what each party hopes to achieve. The objectives of each party will determine whether the type of partnership will be directly involved in the overall school program or whether it will be indirectly involved, or involved in just a specific area of the school program. Some school-business partnerships are only partnerships in the sense that both parties desire that the relationship be as uncomplicated as possible. In this kind of partnership the business might provide funds and equipment for the school program while the school may reciprocate by publicly giving credit to the business. Another type of partnership is the long-term partnership and is usually more complex in nature. The long-term partnerships usually have well-defined purposes and both parties work closely together to accomplish their objectives. These partnerships often provide programs to help enrich the school programs such as sending professional business people to teach mini-courses. Long-term partnerships are frequently concerned with developing enriching career educational programs and providing on-the-job training.

How can partnerships be effective for the rural school?

Along with today's emphasis on effective education also comes the constant pressure of budget cutbacks of public education funds. Forming a strong school-business partnership can help ease some of the budget woes and permit the business community to take responsibility for the quality of education, and can make the transition from school to work easier. Rural schools frequently do not have the monies for new equipment or innovative teaching projects. Partnerships can help supply funds and professional expertise for hands-on projects or pilot programs which the rural school budget may not be able to cover but which the school desires to incorporate into its curriculum. An example of this might be an agreement between a local bank and a school to stimulate life skill activities as motivating factors to achieving learning objectives. Often businesses can provide workshops for students and staff, provide up-to-date equipment, or provide direct on-the-job training. Many partnerships are formed because both the rural school and business community find themselves concerned about the lack of rural career enrichment programs. With budget cuts and the increased attention being given to the back-to-basics movement, schools are finding that they have to decide whether they can afford to include arts and humanities in their curriculum. Rural educators who are concerned about the importance of arts and humanities to students' overall educational and cultural growth should look toward possible partnerships to fulfill this need.

Arts and humanities programs frequently discover they need to bring in outside instructional resources. Again, partnerships can fill that void by functioning as a liaison for the school and a cultural center, for example. With the support of a partnership, schools can encourage teachers to work closely with cultural centers to stimulate student creativeness.

How can business benefit from the school business partnership?

While we can say that a good partnership might be invaluable to the rural school, the same can be said for the business community. By cooperating with the rural schools in developing strong career and educational programs, the rural business community may not have to depend upon outside skilled help. Large businesses which form partnerships with rural schools are assuring their own future with the knowledge that the future work force may be the finished product of their involvement in quality education.

Why are partnerships formed?

- Mutual desire to improve the quality of education

Rural schools are usually too small to offer a large variety of educational services. Too often, enriching activities such as field trips and special workshops are not available to rural schools. The reasons for this vary such as lack of funding, lack of facilities, or simply a lack of qualified staff. In order to give rural school students the same opportunity for quality education which is available to many urban schools, outside resources should be considered. A good partnership can bring in a wide range of fields and professionals to satisfy the need and contribute to the broadening of rural students' social and career perspectives.

- A need to uplift the morale of the educational system and the rural community regarding education

While the back-to-basics movement itself may not be a hard subject to deal with, recent criticism of public education has to some extent, taken its toll on school and community morale. The business community can play a vital role in uplifting the morale of both the eucational system and the community by being involved in the whole school program. Partnerships can function as a liaison in the improvement of community-school programs.

- The school's need for financial funding

Rural schools with a budget that usually just covers the bare necessities can benefit by the formation of a good partnership. Outdated school equipment can be replaced with modern equipment with monies from partnerships. Buildings, renovations, and computers are just a few extras that business partnerships could provide.

How can partnerships be formed?

A partnership can be initiated by either a school or a business. To form a partnership, communication must be established. Each party should be willing to take time to sit down and draw up a definite set of goals. The parties involved must be committed to the time and effort it takes to make a good partnership. Individuals should be selected from each side who are comfortable working outside their environment and who relate well with people. Business-school partnerships can be extremely rewarding--but to work, they need total commitment from both parties.

What are some successful examples of school-business partnerships?

- A good example of a rural community education program took place in a community in Iowa with two companies and the schools of that community. The main goal of that partnership was to give students education and experience in the computer field.
- In Virginia a partnership was set up with the Chesapeake Corporation of Virginia to solve the math teacher shortage. In this partnership business loaned engineers to schools to teach advanced math classes.
- A rural community in Utah formed a partnership to provide educational opportunities for students via a live telelearning network.
- Rural communities in North Carolina realized that they needed stronger mathematics and science programs, so partnerships were utilized to fill the void.
- Southern Georgia has the Marvin Pittman Laboratory School which works with schools in the development of new teaching approaches.

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Blueprint for Entrepreneurship in Your School

Entrepreneur: One who organizes, manages and assumes the risks of a business or enterprise.
Webster's New Collegiate Dictionary

School-Based Enterprises and Student Entrepreneurs

"Have fun, learn something new, make decisions, be your own boss, earn money, create something, improve your community and learn to work with others, all while getting high school credit!" Schools that integrate entrepreneurship into their courses find students using just those phrases to describe their school experiences.

Learning how to begin and run a business provides immediate relevance to the school experience, can create additional economic activity in a community and is a life-long skill that continues to pay benefits. The school-based enterprise is a simple idea. Students research, plan, set up, operate and own economically viable small businesses in cooperation with local educational institutions. There is a classroom component to the program as well as an experiential component.

The Way-Off Broadway Delicatessen was created by a group of rural high school students from St. Pauls High School in St. Pauls, North Carolina. Serving typical New York deli fare to travelers using Interstate 95 between New York and Florida, its great success is due to two factors: It provides an unusual alternative to fast food along the interstate, and the workers are owners. "Everyone should be putting in 110%, said deli manager John Dexter. "They're going to work harder because they're working for themselves instead of for someone else." Begun as a school project, the Way-Off Broadway Deli becomes an independent cooperative this spring.

The REAL Story, Winter, 88/89

How to Begin: Getting Organized and Deciding What to Do

Communities (school board members, administrators, teachers, students, parents, business people, etc.) begin by agreeing that student learning can be enhanced if students learn how to create jobs as well as how to work for someone else. School officials identify a teacher eager to expand the regular curricula. Student participants may be selected (one school used grade point average, another ignores academic ranking and identifies students who are risk takers), or students may select the class themselves (other schools define the program as an elective). In some schools participation is restricted to juniors and seniors; others open it to all high school classes, including ninth graders.

The project can fit in existing curricula (there are now examples in classes ranging from English through Social Studies, Business, Math, Economics and Band) or be offered as a free-standing course. The only unbendable guideline is that student-created businesses, like all businesses, must serve real needs to be successful. Some enterprises are profit-making, others are intended as community service, not-for-profit endeavors. This article includes examples of both.

Fitting the enterprise to the needs of the community is critical, and this is where the community survey (see preceding article) can be very useful.

It is tempting to ignore the survey step. Students will be sure they have a wonderful idea, and be impatient to begin, unable to understand why they should "waste time" discovering what real needs exist. This impetuosity, not confined to teenagers, contributes to the high rate of small business failures. The community survey is to identify existing and unmet community needs that student enterprises can address.

The survey provides an analysis of the community's demographics and economic base, and will bring to light possibilities that students haven't considered. For instance, many rural communities are aging. A large proportion of the population is over 60, and the need for services to the elderly is significant. Rural communities often have financial difficulty providing such services. A school-based enterprise could help fill those needs, and service businesses are among the simplest (and least costly) to start.

Students in Harding County, South Dakota discovered, through their community surveys, that there was a great need for people to do odd jobs: painting, cleaning and putting on storm windows, for instance. They began an employment service through their social studies class. They circulated applications to all the students; negotiated an arrangement with the school secretary to take messages; developed a data base to match requests with student talent; and publicized the program through the local paper, radio station and with posters in the churches and at other gathering places around town. They charge student workers five percent of the first day's wage and a smaller percentage for repeat business. Students learn organizing skills, workers earn money and older people in the community see them and the school as a source of help rather than annoyance. Community pride has blossomed as the

appearance of homes has improved. "I don't know what I'd do without my helper from school," said one grey-haired resident from her porch. "Before my husband died we were so proud of our house and yard and I just can't keep it up myself, the heavy lifting you know. We talk, too, just after he's done, and sometimes share some cookies. It just makes my day when I know he's coming."

The community study provides a list of possibilities for student businesses. Feasible alternatives that arise can be prioritized, with such student developed criteria as:

- fit to community,
- fit to student operation and interest, and
- ability to exist as an independent enterprise, etc.

Business Plans: Deciding How to Do It

The next step is a student-developed business plan. The business plan describes the business and the reasons a lender should invest start-up money in it. When the enterprise is non-profit, the business plan outlines reasons the school should sponsor the activity. The business plan is the result of student research, ideas and creativity.

Typically, business plans include executive summaries (lenders are busy people and students need to learn to write to capture attention quickly); a description of the company, the industry and the competition; a description of the product and the production process (or the service proposed); an assessment of the market and how the product or service will be marketed; plans for management and personnel; financial data;and supporting documents or exhibits. During this same process, needed resources are targeted, including sources for venture capital. Creating a business plan brings real world learning into the curriculum. In the North Carolina experience with REAL Enterprises, the North Carolina Bankers Association found the student business plans better written than those submitted by most adult loan applicants. A sample business plan outline follows this chapter.

Student business plans provide an opportunity to involve the community in a meaningful way. Community members are willing and eager to contribute their talents and expertise to local schools in worthwhile ways, but rarely are they asked for more than token monetary contributions.

"It feels much better to be asked to talk to students about something I know, like costs of running an operation and sources of supplies, than to always just be asked to put up $25 for the yearbook."

A community-based development advisory council (DAC) can be involved from the beginning when the initiation of a new business is being discussed. Brainstorming with students about possible enterprises also involves the business leaders in positive ways with the school and in creating a more optimistic future for the community's young people. DAC members can be drawn from a list of local people who are skilled and knowledgeable about business, such as a banker, a local CPA, school administrators and others who are not simply consumers. Local lawyers can help with incorporation issues; physicians or dentists can talk about limited partnerships, sole proprietorships and personal corporations. DAC members can also provide some reality checks on unrealistic expectations.

A cafe owner, who inherited the business from her family, told a group of students, "We almost lost the place. I showed up in the morning to open up and closed up at night. I had people working for me, and didn't think I had to be there. I had no idea being the boss meant you had to work, and usually harder than everyone else."

When plans are firmer, you may wish to expand the DAC to business people familiar with the type of enterprise proposed. While it is important that those who could kill or harm the enterprise be identified—and a concerted effort to win those people over must be made—it has been our experience that having a policy that student enterprises not compete directly with existing community businesses removes most negative reaction. Because community leaders are deeply concerned about the future, they welcome increased economic activity. They are often astounded at the talent and energy of students, and begin to work hard to find ways to keep them around after high school.

"For years, our school taxes have gone to create a future we've exported. This project is a first step in turning that around."

The Harding County School is on Highway 85 next to a small gas and groceries operation in Buffalo, South Dakota. Because the district is about 50 miles square, many students board in town during the week, living with relatives or on their own and going home to ranches only on the weekend. Curt Shaw's social studies class decided that their stomachs presented a need to be filled. They conducted a simple survey of the high school, asking what kinds of foods students would like to have available for before-school breakfasts and snacks. Instead of starting a school store, Curt and his students took the list next door and shared it (and what the class was doing) with the proprietor of the gas station. She now stocks those items, has increased her profits and is a strong community supporter of the other student entrepreneurial ideas.

The decisions about which student-devised plans to support can be made by the community-based development advisory committee (DAC) with board review and final approval. It is a good idea to spread the decisions among a group of people as a way of increasing information about the project, insuring the best decisions and avoiding personality conflicts. The board of education usually retains final project approval.

Students in Belle Fourche, South Dakota, where the school is about two miles from the nearest store, reacted to the same adolescent hungers by starting a school store. They conducted a survey to decide what to stock, negotiated with the school administration, the board of education, several suppliers and the school attorney before beginning. They filed incorporation papers with the state of South Dakota. Local merchants provided encouragement and advice. All has not been smooth, however. To make the store more attractive, they covered the outside with barn wood. The State Fire Marshall determined that it didn't meet the fire code, so they began negotiating with state officials. After proposing a series of creative compromises, they sprayed the offending wood with fire retardant. The store clears roughly thirty dollars a day selling soft drinks, microwave hot items and celery, carrot sticks and salads to the students.

Operating a Business: Filling Real Needs

Student-owned and managed businesses are no different from other businesses. They need to fill real consumer needs. In northwestern South Dakota, where winters are long and hard and many people heat their homes with wood, Harding County provides an illustration of how a project can meet several needs at one time.

Last year, Ben Latham of Camp Crook, SD cut wood from his father's ranch and sold it to earn enough money for a trip to Europe. This year, he negotiated on behalf of his father with the students in his class (Ben's a senior this year) and they took over his wood-cutting business. The negotiations included the cost of the truck to haul the wood, gas and oil for the truck and the chain saws and sharpening the saws (students researched the costs of buying equipment as opposed to leasing it from Ben's dad and decided leasing was the best deal). They cut wood on weekends, stack it in trucks and bring it to town (about forty miles) and split and stack it next to the school. Orders come to the school and are filled during student free time, after classes. Keeping careful track of hours, they intend to pay every student on the basis of how many hours he/she put in at the end of the wood season (which in South Dakota lasts until April). They all figure to make well above minimum wage and, at the same time, are providing a much appreciated service to the wood-burning citizens of the area.

Some student-operated enterprises are organized to re-invest profits in a mutual goal, rather than set up for individual gain. Profits from a commemorative football program, which included a history of the school and team and was personally autographed by the team, coaching staff and cheerleaders, were used to purchase a banner for the school gym.

The most popular TV show in Presho/Lyman, SD is written and produced by band members at Lyman High. Called The Lyman Connection, the show appears on cable TV every Friday night. A talk show format gives community members an opportunity to talk about special interests (Arbor Day, the Soil Conservation District, an upcoming local theater production) and showcases performances by members of the band and chorus. The students plow most of the profits from their show back into production costs; the remainder supports band trips.

The commercials may be the most eagerly awaited parts of the show. Written and performed by the band members, they feature local merchants who are enthusiastic about buying time on the show. One, for example, features an old, old lady in an old, old car creaking into the local mechanic's garage. The garage door closes and, when it opens, out comes a beautiful blond high school senior in a new red convertible. The garage's business has boomed.

The students drive 150 miles each Thursday after school to the nearest television studio, edit the tape all night and drive back just in time for their first class on Friday. The show airs Friday nights and videotapes of the show are the most popular rental at the local video store.

Concerns: Liability, Community Perceptions, Accountability

Liability

Liability issues are a concern for school boards and administrators. The superintendents we consulted suggest that, as a school-sanctioned activity (with a board resolution to that effect), the projects are covered under the school's existing insurance policies. You may want to raise the issue with your school attorney.

Accountability

Parents, community members and teachers may ask, "How can we be sure the students are really learning?" There are two ways. The first is to have the teacher(s) analyze the basic skills or competencies for which they are regularly responsible and make plans to be sure they are covered and evaluated as the projects proceed. (A full discussion of how that is done can be found in the article, "Blueprint for Course Design," that follows this one.)

The second way to monitor student learning is even more compelling. It comes from the students themselves as they enthusiastically show and tell the adults with whom they interact how much they are learning.

A group of Harding County, SD students are preparing a directory of all the small businesses in the County. They report, "You can get anything you need, right here!" They are making the directory available free, as a public service, and have learned so much about starting small businesses that they are working as consultants to adult community members. For instance, Marc, a local 23-year old, wants to start a health club. The students have conducted two rounds of surveys for him to satisfy the demands of the SBA and considered (and declined) an opportunity to become silent partners in the operation. (They thought his plans were too ambitious, based on what they knew of him and their data.)

Another community member is being urged by the students to start a cleaning business. They have discovered the need, are willing to buy the equipment and lease it to her, and several of the students will work for her while they are going to school. The Harding County students are (collectively) members of the chamber of commerce, attend meetings and serve on standing chamber committees.

Parents report that conversations at home have moved from the usual—"How was school?" "Fine." "What did you do?" "Nothing"—to excited students, bursting with new information, who monopolize conversations at home on issues such as the social boundaries in the community, the county system for licensing and permits, the history and settlement patterns of the town, the recalcitrance of the fire marshall, the problems of cash-flow and the surprising number of existing businesses in the county.

"This is real learning," said one redheaded senior. "This is how it is in the real world. We're so much better at working together and I appreciate some people I never had time for before. I'm just sorry more of my classes weren't like this one. It's sometimes confusing, but always interesting."

Community Perceptions

Will community members think the students are goofing off when they are out of school, collecting information or doing research? Possibly, at the beginning. Community meetings and articles in the local paper, on the radio and in newsletters can eliminate some misunderstandings. The office secretaries should expect some calls as community members react to the sight of students outside during school time. A simple explanation that it's a school project and personal experience with the earnestness and seriousness of the students will quickly clear up matters. And again, a school board policy endorsing the project is a big help.

Belle Fourche students are responsible for a twice-a-week radio show on the local commercial station. The show began as the usual reading of announcements, but the students lost patience with that. "We didn't want a radio show that just was a talking head. We wanted to really use the medium and create a theater of the mind." They take pains to present an audio experience that is greatly anticipated by the listeners as a way to keep up with what's happening with their school and community. The radio show is a branch of the corporation created by the Belle Fourche students, called THIS, Limited. The radio work is HEAR THIS; other subsidiaries include EAT THIS, a refreshment stand; WEAR THIS, a T-shirt printing business on the drawing boards; and WATCH THIS, a dinner theater for which they prepared cost estimates, planned and prepared the menu, decorated and managed the house and produced a female version of "The Odd Couple" for a three-day run.

Outcomes: What if the Business Fails?

A not uncommon concern is, "What if the student business fails?" Statistics on small business failure are familiar and gloomy. What is not so well known is that most of those failures are attributable to poor planning and the lack of a business plan. Careful attention to teaching students how to plan for their own businesses creates skills that will serve them wherever, whenever, and if ever, they decide that working for themselves is what they want. If, after all the careful planning and work, a student-owned business fails, that is a lesson to be learned as well. The school district and board of education are generally protected from financial consequences of a business failure.

The emotional and psychological consequences for the students are also part of the risk required for success in the free enterprise system. An entrepreneur is defined as "one who organizes, manages and assumes the risks of a business or enterprise." There is risk involved. The business owners we've involved in the program appreciate that students are aware of and willing to assume risks. They say that that's the exchange for the potential to make a profit. We think the approach outlined here minimizes that risk because of the careful attention given to well-researched business plans. While all risk can't be avoided, careful guidance can lessen the potential failures. The point of the program is student knowledge, and when interpreted by a talented teacher, failure too can be a learning opportunity.

The Belle Fourche Dinner Theater, for example, played to about half the crowd they had planned for because the students did not sell the tickets they had assumed responsibility for. Rather they counted on sales at the door that didn't materialize. This left them with left-over food. The prime beef was sold easily to faculty and parents at cost. The lettuce, carrots and other perishable salad fixings presented a larger problem. They made individual salads and sold them in the school store, marketed raw vegetables to the wrestling and basketball teams after practice, and took a loss on the rest. The next production will have built on the great word of mouth recommendations from the audience that attended this one, and more publicity. In the future, the students plan to invest more time and effort in advance ticket sales.

It is important and relatively simple to build a high level of accountability into the project. Students can report constantly to the community, to boards of directors of local civic organizations, the PTA, teacher organizations, etc., and find opportunities to talk about what they're doing. At the same time, an information campaign can be initiated in the community. Periodic press releases with pictures showing the business in progress can be given to local media. If there is no local media, posters could be prepared and written by students and distributed at local points of interest, a community newsletter could be developed and distributed or perhaps a school newsletter could be distributed more widely to the community.

Ultimately, the best nurturing comes from those adult supervisors willing to allow the students to make decisions and implement them. Technical assistance from local resource people as well as external sources may be needed, and the ability to identify sources and to ask for that assistance can be an important learning project. One dedicated teacher, however, is key. Our experience is that unless a school has a teacher turned-on and fired-up about the idea, it won't work. Delay your plans until you find a committed teacher. You may, however, encourage lukewarm interest by arrang-

ing a site visit to a successful project, or arrange to have some involved, experienced teachers and students come talk to your faculty/community. The student-to-student and teacher-to-teacher exchange is a powerful motivator. There are also outside experts from McREL and other organizations who can speak to your faculty/community.

Some administrators and boards wonder, "What if we get this project up and running and the teacher leaves?" Well, either another teacher on the faculty will take it over, or you will hire someone who agrees to continue it (that is Chuck Maxon's solution in Harding County. He says "The community won't let me drop the program."), or you stop the program. The students who have been involved will have profited, and the school has no large investment in materials or equipment.

Money: Costs to the School and Start-up Capital

Let's talk, for a moment, about costs. The strength and apparent weakness of the program is that there is no packaged curriculum. Therefore, the project has no start-up costs and no unexpected costs later. Class time and teacher time come already budgeted for, students are not reimbursed for their time, and there are no special materials or equipment to purchase. The project requires an attitude shift as much as anything, and the activities come from each individual, unique situation: the blend of community, teacher and students. Some teachers will relish the opportunity to be flexible and creative; others will be frustrated at the thought.

There are ways to support teachers. They include courses in community development at colleges and universities (one created especially for this project is described in the article on studying the community and will be team taught by the South Dakota teachers involved with McREL). Short courses and consultation are often offered by extension services and economic development centers. In-service sessions with teachers and students who are already doing projects are possible to arrange, and videotapes and print material are available from McREL and others.

While costs to the district are minimal, there may be some costs associated with the businesses the students wish to start. When students have identified market niches through community survey research, decided on goods or services that are needed that they could produce, prepared business plans and had them reviewed by development advisory committees and approved by the board of education, it is time to secure financing for their ventures.

The quality of the business plan will determine how well it will attract financing. Of course, waiting for capital to fund the business may mean a very long wait. At the outset, it is wise to identify stages within the business plan and to target financial resources needed for each stage. This will enable a sequence of financing that can add to the strength of the enterprise and may be easier to obtain in smaller communities.

Funds are available from a number of sources. The district itself, in rare cases, may wish to provide start-up capital. Stage legislation governing spending by school districts may need to be reviewed. In fact, if this is an inhibiting factor, an effort on the part of several districts interested in this approach to community development may need to actively lobby for change. On the other hand, state dollars may be available, as several states have special funding packages available for rural communities.

It is important to begin with the local community. Close ties to investors will enhance the opportunities for success. Some local Chambers of Commerce have economic development programs that include incentives for new businesses. The local advisory board may be of considerable help in developing sources for risk capital. A local development corporation may need to be developed to handle financing. Grants could also be written through Chapter 2, Carl Perkins or Job Training Partnership Act (JTPA) funds. It is important that, even though the business is owned and operated by young people, it be subject to the rigors of the marketplace faced by any other business. This way students will learn the most and be best prepared to survive in the real world.

There is also the possibility of developing a partnership with an existing local business. In this case, it may be in the best interest to invest in a business that offers some type of support service that previously had to be sought elsewhere. Businesses developed as school-based businesses could be prime supporters of new businesses. In fact, that may be something that could be specified in the business plan. Another good source for funding is those individuals in the community who are already providing financial support in the form of scholarships. A good business plan should be fundable from the usual sources; however, donations may be in order, especially if funding sources are difficult to access.

Of course, local banks and other sources of commercial capital should be contacted. The most difficult obstacle to overcome is lack of collateral. School districts may not wish to encumber property, and students generally do not have sufficient collateral to insure a business loan. However, if the business is such that signed contracts for services can be obtained in advance, those contracts can act as collateral.

The Small Business Administration has a guaranteed loan program, FASTRACK, for just these kind of student owned and operated businesses. The FASTRACK process is itself an education in securing government loans. The fact is, when seeking capital for starting a business, small amounts are often more difficult to obtain than large amounts.. For that reason, it may make some sense for an intermediate service agency to acquire larger funds which can then be distributed to local school districts engaging in the establishment of school-based enterprises. Establishing an economic development mill levy might also provide a source of risk capital on a local level.

Aaron Amber of Lyman, SD began his own business last summer. Lyman opened a new golf course and Aaron got the first loan from the SBA's FASTRACK program for students and now owns and operates a driving range.

Through this process there should be several active partners seeking capital: the school system, local banks, private corporations, the federal government and the students themselves.

The Bottom Line

Finally, as the business develops, there should be in place some criteria for spinning-off the business. Some projects in Georgia ran into difficulties when the child care center that students started proved so profitable that the school refused to relinquish ownership to the students when they graduated. They responded by starting another, even more profitable one. The point is, expectations should be clear. Criteria need to be developed for who is eligible to take over the business once those students involved have graduated or at the time of spin-off. Contracts should be made with time lines included and a written plan for how and when the business will spin-off into the community. In addition, there may be a variety of legal issues to consider. All of these issues can be dealt with on an individual basis, by individual communities and boards of education.

School boards will need to develop policies involving rules for business involvement and operation. For example the following might be included in such a policy:

- All students working with the enterprise have the right to become an owner but do not have to be an owner.
- Any student working in the business must take education support classes that teach business skills.
- All owners must work in the enterprise.
- Students have several ways to become business owners, including fiscal and "sweat equity," where they earn shares by working in the business.

A time limit needs to be established for spin-off. At the same time, the first right of purchase of a business must belong to the students who founded it. Perhaps the second right of purchase should be to the adult supervisor who has been working with the students. Following the refusal by both parties, the school then can make the decision to retain the business or to sell it. It is important, however, that the school not elect to retain the business simply because of its success and refuse students the opportunity to purchase it. Clear policies will help resist that temptation, even when the business provides very good public relations exposure or is highly successful.

In addition to specifying how the business must be sold, policies about price should be established. A formula for determining that price should be specified and agreed upon at the outset. That formula should reflect the actual investment in the business plus a reasonable level of interest or profit share.

If the ultimate purpose in developing school-based enterprises is as it should be, to provide educational opportunities for students, to enhance community development through a collaborative community/school effort and to increase opportunities for students to stay in their home communities or return to them, the school-based business must be looking to a future position as a community business. The school acts as an incubator, nurturing the business in its early stages as students learn what they need to know to "leave the nest."

Eighteen Additional Suggestions for Entrepeneurial Activities

Directories of business services available in communities and counties can be researched and produced by economics or business classes. Listings can be provided free or for a small charge, advertising can be sold.

Job services can match willing student (and community) workers with employment opportunities; students can operate the employment service as part of a business curriculum. The service can be organized as a worker-owner corporation, with shares allocated in exchange for sweat equity. Jobs might include the usual (babysitting, lawn care, cleaning, home maintanence) and such tailored services as the delivery and installation of water softener salt. The employment service may charge a small percentage of wages earned by workers placed or collect a fee from the person requesting the service, or both.

Students in family or human development classes can organize child care services for days when school is cancelled to accommodate families where both parents are employed out of the home.

Summer camps for families with two wage earners can provide a service and an opportunity for students to learn about child development and care for students in home economics, family or health classes.

Physical education class members can provide coaching in life long recreation skills such as tennis, handball, volleyball and other individual and team sports.

Arts and Craft fairs where local citizens can display and sell goods can be an annual Saturday event that draws the community together and provides an additional source of income for talented community members, organized by the Art classes. The organizers can also arrange monthly shows in local businesses and in public places with the artist clearly identified to raise interest in the next show. A portion of the proceeds covers organizing expenses and provides a profit for the producers.

History classes can research when public and private buildings in town were constructed and who owned them then and now. Shop or Industrial Arts students can make lawn signs with this information. Buhler, Kansas had signs like this on lawns during their Centennial celebration, much to the delight of the out of town residents who returned for the day.

Some students interested in health care or social work could research and set up a child care and respite service especially for children with handicaps and their families. Students figure out how to qualiify as certified care providers (perhaps by setting up their own certification program). There may be third party payments or state support available to families to pay for such services.

The music department and students might organize an instrument inventory, repair and exchange service for outgrown or underused instruments, charging a small percentage for offering the service. Other music students may investigate a booking agency for local club meetings, dances and other circumstances when music is a desired addition.

Agriculture or biology students could engage in experimental agriculture, researching and testing new crops that might improve a sagging farm economy. Microcrops, supplies for gourmet groceries or restuarants in urban areas and new uses for ancient seeds are all potentially profitable.

English students could organize a rental library for books, paperbacks, records, tapes, CDs and videotapes. Part of the service might be suggestions for reading/listening/viewing materials and brief reviews to interested patrons. In some areas, a pick-up and delivery service would add to the value of the exchange.

Students could organize and manage a bi-annual community garage sale and clean-up campaign. Student helpers could be available for minor repairs, painting, yard work and hauling. Proceeds from the garage sale could be spilt among the owners and school or the owners and a local charity.

Students could be trained to do energy and safety audits of private residences, encouraging or providing assistance to reduce energy use through better insulation or fuel conservation. Dollars not exported for fuel costs can then circulate in the local community.

Students in English or journalism classes could research, read and edit, as well as type or word process, papers for community members attending adult education courses. A student-run agency would guarantee timely, accurate results.

Business or economics classes might prepare a community "yellow pages" listing talents and skills people were willing to share or wanted to exchange. For instance, someone might be willing to read to a person with diminished sight, in exchange for a pan of sweet rolls or some lawn work. The journalism or English class could write descriptions and produce the document with yearly updates and follow-up stories.

Classes with expertise in developing business plans, starting new businesses and community surveys can share their expertise with community members individually as consultants, negotiating fees on an individual job basis. In Harding County, for example, the students' market research suggested there was a need for a cleaning/painting service. They investigated the purchase price for heavy cleaning and painting equipment, identified a local resident they thought would do a good job, and suggested she start the service, employ several students and lease the equipment from them.

A community theater, including student actors and technicians, could be established that used school facilities. Students in Belle Fourche, South Dakota, organized a dinner theater to increase profits and participation in their productions.

Business plans keep students realistic and focused. They also may surface additional opportunities. In Presho, for example, a student investigating the possibilities of a trash and garbage pick-up service was spurred by his business plan development to include providing garbage cans, can liners, bags and fly spray in the summer.

Ten Strategies for Making the Connection: Rural Schools and Economic Development

1. *Chamber-School Committee Membership*
   Appoint educators to Chamber of Commerce committees; appoint business people to school committees. Ask participants occasionally to report to their respective boards on what they are doing.
2. *Joint School Board-Chamber Meetings*
   Schedule regularly a joint meeting of the School Board and the Chamber of Commerce to share information relevant to economic development.
3. *Economic Surveys by School Classes*
   Ask high school classes or clubs to conduct community surveys to help determine current economic activities, trends, and projections.
4. *Career Awareness Days*
   Ask local employers to act as "mentors for a day" for high school students as a means of career exploration.
5. *Teacher-Business Exchanges*
   Sponsor a one-day "job exchange" program, asking teachers to work in businesses and business people to work in schools, Hold a follow-up discussion.
6. *Entrepreneurship Education*
   Sponsor a class in the high school on starting and operating a small business, with guest speakers from local businesses as an integral part of the instructional plan.
7. *School Facilities as Incubators*
   Make available under-utilized school facilities as small business incubators. Hire students to provide support services.
8. *School-Based Businesses*
   Initiate a program that will help students explore, start and operate businesses filling gaps in available local services.
9. *Joint Economic Development Planning*
   Ask the School Board, County Board, Town Council and Chamber of Commerce to develop a joint area economic development action plan, using the unique strengths and contributions of each partner.
10. *Public-Private Partnership for Leadership Development*
    Develop a public-private partnership for leadership development, focusing the program on developing local capacity and nurturing local resources that are critical to economic renewal.

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Six things you must consider before opening schools to community groups

By Robert L. Monks

DURING a time of declining enrollment, requests by nonschool groups to use school facilities at night and on weekends are likely to increase. That's because sentiment in many communities favors opening up schools during off-hours for use as community centers. School boards that are interested in earning points with the public would be wise to promote such ideas—but on your own terms. To protect schools from possible abuse—and to ensure that educational programs are not disrupted—boards need specific policies to govern the use of schools by nonschool groups. Otherwise, problems are bound to spring up.

Here's a situation I encountered as a principal: A local theater group was using the school auditorium for a play, and during a rehearsal, an accident occurred. One curtain on the stage was snagged by a spotlight overhead, and as a result, four curtain panels burned. The theater group had no insurance to cover such mishaps, and the school system's insurance carrier was reluctant to pay for damage caused by a nonschool group during nonschool hours. Eventually, the theater troupe agreed to use receipts from its play to pay for new curtain panels, but only after several needless heated exchanges and a threatened lawsuit. A board policy requiring groups that use school facilities to carry insurance would have prevented this situation.

When drawing up your board's policy governing the use of school facilities by outside groups, here are some things to consider:

1. **Cost.** Specify whether or not groups will be charged for using school space, and if so, how much. Take into consideration the local situation (some small communities, for example, have few public facilities, and boards in such locales probably would not charge for most events); consider the cost of school utilities; how long the building will be used (nightly for several weeks for a play, one full day for a local election, one Saturday afternoon for a civic group's fish fry); how likely the event is to require special services (custodians, cafeteria workers); how many people are involved; the size of the organization. You might even consider whether or not the school will be used for money-making ventures: Community service groups using the school for a potluck dinner to raise funds, for example, *would* be charged; Boy Scout troops needing a one-time meeting place *would not*. A flexible scale of charges probably is the best solution.

> Access to school by community groups should be regulated by a clear, specific policy protecting property and school operations

2. **Conditions.** Stipulate that use of school facilities be permitted only when activities will not interfere with classes and only when activities are unlikely to result in damage to school property. Also, make provisions to keep use by nonschool groups nondiscriminatory: It would be unwise to allow one political group to use a school auditorium for a rally, for instance, but not another. Remember that the public has no "divine right" to use schools; the board ultimately decides who will and won't be given permission. In sticky situations (if the Nazi Party wanted to use school facilities, for example), check with the board's attorney. One way to cover yourself might be to charge *all* users a fee so that no group later can claim discrimination when it is charged.

3. **Insurance.** Insist that nonschool groups carry insurance to cover personal injuries and property damage incurred while on school property. If that's impossible, check with the board's insurance carrier to see what—if anything—the school system's insurance will cover.

4. **School representatives.** Whenever special school equipment or facilities are to be used, be sure a school representative or technician is on hand to supervise. The lighted scoreboard in the gymnasium, the footlights in the auditorium, the stoves and ovens in the school kitchen—all should be supervised by qualified school personnel. You might think about building the cost for such service—including custodial service—into the fee groups pay.

5. **Scheduling.** Coordinate the scheduling of school use through the building principal when possible, especially for such routine events as club meetings. The rule of thumb for scheduling: School activities always come first; if an event unduly interrupts the educational process at a school or inconveniences its employes, it should not be scheduled.

6. **Security.** If a group plans to use only a portion of the school building, make provisions to protect other portions. Other security service (guards, doormen) is the financial responsibility of the sponsoring group.

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SECTION 4

THE PLANNING PROCESS

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Planning That Fits Every District

Three Choices Help Define Your Plan's Scope

BY ROGER KAUFMAN AND JERRY J. HERMAN

Which of these three questions best defines your vision of your district?

- Are you concerned with improving the quality of a product generated by an individual or small group in your educational organization?
- Are you concerned with improving the quality of a product generated by your educational organization?
- Are you interested in social and economic trends and future opportunities which might not exist now or be readily apparent?

For any strategic planning effort to succeed, you must choose carefully the size of your plan and who will benefit from your planning. If you choose too narrow a focus, your district might be stuck with a very well-developed plan that does not contribute to the whole. Conversely, a too-large focus may overwhelm and frustrate planners who only gaze into the future without regard to what is happening today.

The first question above inferred a micro- approach to planning, the second, a macro-, and the third, a mega-approach. Let's take a closer look at each.

Micro-Planning

In *micro-planning*, the primary client and beneficiary is an individual or small group, such as one administrator or a social studies department. The time frame in which the plan operates is frequently weeks or months, never beyond one year.

You may choose a micro-planning process because of your concern for (one or more) teachers' or administrators' work hours, leave policy, safety, pay, power, status, or affiliation. You also may use micro-planning to help individual students or a group of students perform better in courses and activities, or on tests.

Whatever your reason for choosing micro-planning, this process assumes that:

- the goals, objectives, and purposes of the system and its operational units are known, valid, and useful,
- the unit of improvement is the individual and/or the course, activity, or specific intervention,
- the primary beneficiary is the individual or small group, and/or student competency, and
- all such improvements, when combined, will contribute to the measurable improvement of the impact and payoffs for the entire educational system.

Macro-Planning

If you're interested in identifying ways to better reach larger organizational missions and objectives set forth by your school board, parents, or community, then select *macro-planning*. Here, your goal is to improve your educational organization's effectiveness and efficiency as a whole.

Examples of larger objectives that would trigger a macro-planning process include excellence programs, assessments of community desires and preferences, and school-based management and school renewal programs.

Typical macro-planning processes take one year or longer.

Macro-planning assumes that:

- the goals, objectives, and purposes of the educational system and its operational units are known, valid, and useful,
- the unit of improvement is the educational system and all of its parts,
- the accomplishment of these goals and objectives will be suitable to allow learners to be self-sufficient and self-reliant in today's and tomorrow's world, and
- the future is generally determined by others (such as legislators, business executives, advisory groups) and we can only attempt to forecast and respond to the trends.

Mega-Planning

In *mega-planning*, society is the beneficiary. This basic and rare approach identifies existing and future needs and opportunities while striving to accomplish the goals of micro- and macro-planning.

A successful future for individuals, organizations, and society is the goal of mega-planning. It not only deals with "what is" and "what should be," but also adds the dimension of "what could be."

Mega-planning assumes that:

- the unit of improvement is society as well as the educational system including all its parts,
- we can and should shape the future, not just react to it,
- people care about the future and wish to purposely design, develop, implement, and evaluate an educational system which will be effi-

cient *and* progressive in identifying new missions that can contribute to society, and

- the primary beneficiary is society, now and in the future.

Next Steps

The planner's life would be less aggravating if things related in a linear, lock-step fashion. Who doesn't wish that we could simply move from micro- to macro- to mega-planning and onto results and payoffs.

However, the hard work and thought that you and your strategic planning group devote in choosing the scope of your planning process will reward you through these next 12 steps.

1. Identify beliefs and values. Beliefs, values, and wishes of your strategic planning group will drive your plan. These should be formally identified and publicly shared after consensus is reached.

Your strategic planning success might hinge on the group's openness to consider new philosophies or basic beliefs about people and education, and to agree on how much change to tackle.

Most beliefs come from very early learning, and can be resistant to change. We suggest that you lead people to question their own beliefs so that constructive change might be possible.

2. Identify visions. Here the planning group identifies and defines what is, what should be, and what could be. Each individual can imagine the world they would like their children to live in, the organization they would like to work in, and the vision they would like to help create as a planning partner.

3. Identify current missions. While progressing through steps 1 and 2, the group should review the current educational mission and, if necessary, rewrite it in performance terms. The mission should include answers to "where are we going?" and "how will we know when we have arrived?"

The group should also determine and analyze operational missions for each part of the education system.

4. Identify needs. Seeing a "need" as a gap in results, the group should scan internally the educational organization and externally the society and community for future opportunities. In assessing needs, the group should be considering and using the data collected in previous steps.

5. Identify matches and mismatches. The group will examine the beliefs, needs, and missions to find similarities and differences. Because each individual's experiences will be important to him or her, the major challenge will be integrating actual performance data with perceptions.

6. Reconcile differences. At this step, the group will have to find common ground among its differences. In hammering out its differences, the group frequently will return to the beliefs, visions, and needs to compare with the existing mission. This step requires the leader's patience, skill in group dynamics, and adeptness at shared problem solving.

7. Select preferred future. Based upon the reconciled beliefs, visions, needs, and missions, the planning partners will choose their preferred future: the organization and society in which they would like to work and live. This step commits the planners to a targeted future and discourages a drift in the organization's current direction.

8. Identify missions. The group now will write a mission statement based upon its visions, beliefs, and needs, using measurable performance results. This often requires altering the mission statement and ordering needs.

9. Identify SWOTS. The planning partners will examine and agree on the educational strengths, weaknesses, opportunities, and threats (SWOTS).

10. Derive decision rules. Decision rules, or policies, should be made so that all partners have the same "marching orders." These policies will provide strategic goals and objectives with measurable performance criteria.

11. Develop strategic action plans. As the last step in the planning process, the group will integrate the needs, visions, beliefs, and missions. Based on the SWOTS and decision rules, the key questions of who, what, when, where, how, and why should be answered.

12. Put the plan to work. Here, the planning will be complete. Now you will put the plan into action and seek the required results. At this point, work will involve designing the response, implementing plans, and evaluating. Based upon the evaluations, the group will decide about continuing and revising strategies.

Any time change is considered or introduced, many people view the change to imply criticism toward them or their work. Just the implication can make those inside or outside the planning group quite nervous and sometimes hostile.

All school districts can improve on what they already deliver. In spite of those who might call strategic planning impractical or even Utopian, halting the planning process at "what is" instead of moving toward "what could be" is a pessimistic settling for the status quo.

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Suit Yourself with Strategic Planning

Is a Lead or Support Role Better? These Tips Will Help You Decide!

BY WILLIAM BRECK
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What your school is now and what you, your staff, and the community want it to be may be two different things. To turn your vision into reality, you can use a management tool called strategic planning.

If your district already is involved in strategic planning, you probably know how to fit into the process. But if you're considering strategic planning for the first time, you must decide on your role. Strategic planning can succeed regardless of how you participate, but the role you choose is sure to affect the final product.

A few years ago, I helped develop a strategic plan for my district in East Hampton, Connecticut. What I learned about the superintendent's role can help you.

Lead or Support?

The key question is how involved in the actual development of the plan you want or have to be. The more involved you are, the more you're perceived as committed to strategic planning and to the plan's substance. Your involvement also signifies to others that your words and actions are consistent.

The role you'll play in strategic planning will vary from district to district depending on your leadership style, the size of your district, the structure of the central office staff, and the amount of funding available for planning. Regardless of how much you participate, you must support the strategic planning process unequivocally. Without your support, the effort will fail.

> ***"Without the superintendent's support of strategic planning, the effort will fail."***

Your choices for participation basically are two. You can assume a *support* role in which you provide human and material resources as well as coordinate the process, or you can assume a *leadership* role, whereby you initiate a vision of the future for the school district and inspire others to follow it.

The Support Function

Even if you don't participate directly in development of the plan, you'll retain an important support role.

First, you must provide the necessary financial resources for the process to work. You may need money to train participants, to provide food and meeting space, and to type, print, and distribute the plan document.

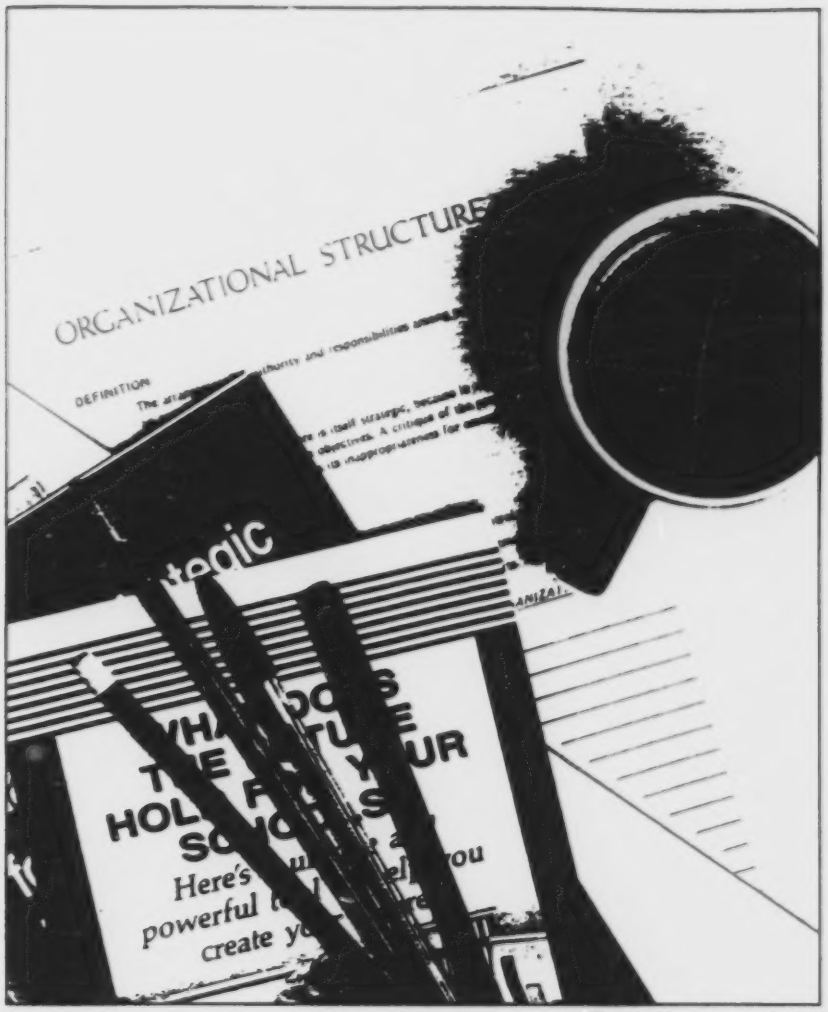
Second, you need to assemble the 20 to 25 people who will comprise the strategic planning group. Your group should be a combination of parents, teachers, administrators, and community leaders who volunteered or were hand-picked. In all cases, the group should reflect the divergent values of the community.

A group of 20 to 25 may seem unwieldy, but will be more manageable after being broken into smaller groups. You will assign each small group an action plan during the early planning stages.

Later, when the strategic plan is put into effect, you should monitor the progress of the various groups toward accomplishing the plan's objectives. Performance of the group should be reviewed at least twice a year. If you work in a larger school district, you may be able to delegate some or all of these support tasks, but you still should oversee all aspects of strategic planning. Your oversight will keep your staff on track and ensure success.

The Leader Role

Ideally, you can hire an outside consultant, called a facilitator, who helps the planning group carry out the strategic plan. Then you're free to



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work as a member of the group, contributing ideas and raising objections.

But when you are the group facilitator, your input isn't allowed. A facilitator's goal is to get the group to generate ideas. The group then reaches a consensus on its own. Facilitators don't pass judgment.

In reality, however, most school districts don't have the funds to hire consultants. If you must serve as the facilitator, be wary of these potential pitfalls.

- *Risking plan credibility.* You jeopardize the plan's credibility if you try to facilitate the planning process while concurrently contributing your own ideas to the plan's substance. Even if you tell the group clearly what your role is, they may get confused because they're accustomed to soliciting your views as superintendent.
- *Finding enough time to devote to strategic planning while handling other routine responsibilities.* My position in a small district meant I had many operational responsibilities. The board of education recognized this problem and allowed me to hire a person (who was already working part time in the district) to help with organizational details. For example, she set up action team meetings and made the arrangements for a three-day retreat at the beginning of the planning process.

I was fortunate that a central office administrator from a nearby town had undergone training at the National Academy for School Executives certification institute with g... He served as a process observer ... his comments and feedback were ... valuable in helping me make adjustments to the process along the way.

Meeting the many deadlines required to complete our strategic planning in the nine-month time frame would have been difficult without the assistance of these two people.

I recommend that you estimate the hours you will be participating and confer with the school board to be certain your schedule allows for the additional tasks.

- *Sharing the glory and reaping the blame.* Facilitating your own strategic plan may be threatening because of the slim risk that it may not work. The person who is most closely identified with any project will be the one who is awarded recognition or disdain depending upon the outcome of the proceedings. You could have trouble if you're closely identified with the plan and it doesn't measure up to the public's expectations.
- *Backing a conservative sta...* When the group realizes it is de... ing the school's future, it may get reticent about taking a bold stance. Strategic planning is not a time to be conservative. It's a time to take risks, to stretch the organization to achieve its vision.
- *Lacking experience.* Even though I had participated in the extensive NASE certification program, my skills and knowledge as a facilitator were rudimentary. I went into the process with an uncomfortable awareness that I was about to practice facilitating a strategic plan in my own district, where the success of the project could directly affect my own career. The positive side to the situation, however, was my determination to make it work. My awareness of the stakes in the project served as a strong motivator.

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Strategic Planning Based on Comprehensive Data

Jerry D. Weast

The retirement of the superintendent who had led the district for 18 years, a school board with uncompromising differences, a climate of distrust from a teachers' strike a few years before, shifting enrollment patterns — and a surprise $4.8 million budget shortfall . . . that was the picture that welcomed the new superintendent to the school district of Great Falls, Montana, in the summer of 1984. At first glance, this might seem like the worst time to begin strategic planning. But the urgent and obvious need for some action actually opened the door to change.

Phase One: Solving the Fiscal Crisis

Phase One of strategic planning dealt with solving the fiscal crisis as well as improving the fit between facilities and services and the educational needs of students. Resources brought to the problem-solving process included analyses of whatever data could be quickly obtained, integrated, and analyzed — including data on student enrollments, administrative and faculty personnel, physical facilities, revenues, and expenditure patterns. Resources also included the people of the community, represented by the board of trustees and by multiple and closely integrated associations, organizations, interest groups, and neighborhoods.

The first step was to review a comprehensive study of facilities, curriculum, and enrollments that had been conducted five years previously, in 1979. The immediate recommendations of that study had been implemented at the time, but the long-range recommendations had been ignored.

Since the 1979 enrollment projection had been right on target, the same methods were used to undertake a new analysis of enrollment trends and projections. This study added analyses and projections of enrollments at parochial and other private schools in the community under various change scenarios. It also identified the most likely changes possible in the personnel levels of the larger businesses and industries in the community.

The facilities section of the 1979 study had also been updated. Changes in the composition of enrollment across grade levels were taken into account. Transportation systems were analyzed to identify streamlining actions that might improve service as well as be more cost-effective. With 1,700 employees in Great Falls Public Schools, it was apparent that refinement was also needed in the personnel data base. The size of the budget shortfall dictated changes in staffing levels. Finally, a system of revenue projections was developed, with continuous monitoring of fluctuations in monthly levels and revision of current budgets on the basis of these fluctuations.

An ad hoc committee of community leaders was created to work for the board of trustees in proposing the changes needed to address the problems. As the committee accumulated and analyzed information, every effort was made to keep both the board and the community aware of the committee's activities, informed of the problems, and most importantly, apprised of how we could use the data to identify solutions.

Pressures are always present to respond to budgetary problems by cutting back on curricula, increasing pupil-teacher ratios, or in other ways reducing the quality of educational services. Could a district adapt to the budget shortfall without taking such actions, and address the problem without jeopardizing the schools' mission or the delivery of educational services? Solutions were sought in staffing, use of facilities, and organization of grade levels. We had to adapt to the budget shortfall, not by trying to find the needed funds all in one place, but by adjusting a little here and a little there.

Reorganization of administrative services was the first target. More than one-fifth of the

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savings necessary was achieved by combining two assistant superintendent positions and eliminating or reducing administrative support positions.

This starting point set a political climate which expanded options to obtain savings in other areas. Analyses of the characteristics of persons in faculty and other non-administrative staff positions, such as average age, length of service, professional status, and so on, led to an incentive program to encourage early retirement.

The next area explored for savings was restructuring of school building use to reflect new enrollment patterns. The 1979 report had anticipated declining enrollment at the secondary level, which would accelerate in 1984 while elementary enrollment increased. The community had experienced substantial net outmigration in the latter 1970s, disproportionately taking families with younger children. As the resulting lower enrollments at the early grade levels moved into secondary schools, junior and senior high enrollments would also begin to decline. The report had suggested that by 1984-85, the district would have excess facilities at these levels. Combining these shifts in enrollment with analyses of building use, the ad hoc committee proposed a reorganization of grades, with an associated change in the use of the physical facilities.

The existing grade arrangement was K-6, 7-9, and 10-12, with four junior high schools feeding into two high schools. The junior high school buildings were under-used: each had 600 to 700 students in buildings that could accommodate 900 to 1,100.

The two high schools were converted into four-year schools for grades 9 to 12. One of the junior highs was closed, and one was remodeled to accommodate the total K-6 enrollment of two elementary buildings, simultaneously putting these children in a better facility. The savings generated by closing the two elementary schools and one of the junior high schools were substantial. The political costs were small in comparison, once the community and district employees understood the options.

These actions, adopted by the board and implemented by district personnel, concluded Phase One. The board, working with the ad hoc committee, looked at the problems holistically. They developed a single, shared vision of the strategic planning required.

The ad hoc committee reports went to the board, the press, and public simultaneously. The community was reached through public hearings and through three TV stations, nine radio stations, and a statewide newspaper. A program of regular correspondence with 200 to 300 key communicators within the community was initiated. Information was disseminated to the faculty directly and in person, through both formal and informal channels. Consideration was given to the diverse interests of the nine unions representing district employees. Keeping the data well diffused in understandable forms contributed to the favorable political climate.

Phase Two: Focus on Long-Range Change

With the resolution of the fiscal crisis, it became possible to move beyond the concrete revenue, enrollment, personnel, and transportation data. Phase Two of the strategic plan involved a shift in focus from immediate problems to long-range change.

Targeting of Resources —

The populations of school attendance areas were examined to better understand socioeconomic similarities and differences across the community to aid in targeting specific programs.

Local school boundaries were cross-referenced with census tracts in order to use census information to describe specific attendance areas. The extensive data on social and economic characteristics increased understanding of how the populations of children and families within each attendance area differed. The report concentrated on those characteristics with implications for school attendance and performance. The indicators selected included the rate of population turnover, the number of working mothers, and the number of single-parent families who lived in each area. These data were used for decisions on staffing and programs for at-risk and atypical learners.

A survey of families with children moving into the community was conducted to bring the census data up to date and to identify how the composition and needs of the school populations were changing. Families were asked why they were moving and what their specific educa-

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tional needs were. To better forecast kindergarten enrollment, census data were updated with information on recent birth rates for the state, county, and community.

The overall pupil-teacher ratio was held level at the elementary schools. The demographic data disclosed groups of children in the lower elementary grades who were at risk. To address these needs, additional elementary teachers were assigned where most needed, and transition classrooms were added for first graders at risk. Savings generated by streamlining the system at grades 7 through 12, cutting back administrative costs, improving the efficiency of the transportation system, and lowering facilities costs were plowed back into elementary and secondary programs and reinvested in technology programs.

The reorganized delivery of educational services quickly led to measurable increases in pupil performance. An improved climate of community opinion was noted.

Individual specialists in the district used the technological developments in computer-assisted telecommunications to develop RIDE (Responding to Individual Differences in Education) to assist teachers' work with atypical learners. This teacher-driven curriculum achieved substantial savings in special education, in part through a far more effective identification process. RIDE has since been adopted by more than 800 schools in 13 states.

Project MOST (Maximizing Opportunities for Students and Teachers), another innovative project, decentralized curricular decision making to the indiyidual building level. This program built on a study of student-teacher-administrator climate conducted in each of the 20 school buildings in the district. A thrust for national recognition was instituted. Since 1986, over 50 awards for national and regional excellence in curriculum and teaching have been received.

Benefits for Employees —

Improvements in employee development programs were undertaken and monitored. New programs were instituted in health and fitness. A daycare center for employees was established. A program to integrate handicapped persons into the work force was begun, and has since become the largest such program in the state.

Reorganization of Facilities —

Additional space would soon be needed at the elementary school level; the problem was acute in two buildings. Enrollment was increasing at the lowest grade levels, both as the children of the "baby boomers" entered school and as the largest employer in the community grew and hired more employees. Just as outmigration takes families with younger children from a community, so does in-migration bring in more of these families. With enrollment declines at the secondary level and increases at the primary level, overall growth at grades K-6 was now taking place. This was the first absolute growth with which the district had dealt in more than 15 years.

Because the Phase One decision to remove the ninth grade from the junior high and create a partial middle school with grades 7 and 8 was viewed as a temporary solution, training in the middle school concept began immediately. The enrollment projections had shown that by 1988-89, the two middle school locations would not be able to house the seventh and eighth graders comfortably. A comprehensive 6-7-8 middle school program would be needed, taking sixth graders from the elementary schools. Strategic planning provided two years' lead time to conduct the changes needed for a smooth transition. The data provided the means to balance the population in the middle schools, socioeconomically and ethnically.

Informing the Community —

The continuous process of keeping the community informed became even more vital as the focus shifted to long-range planning and as the databases became more varied and complex. Administrative bulletins to faculty and staff kept the district's employees informed. Board agendas became detailed and were prepared and reviewed at work sessions at least five days prior to board meetings. At the work sessions, the information was shared with the press and made available to the community, allowing time and opportunity for input to board members before the formal decision-making process.

The political climate surrounding the operation of the school district underwent change. Board campaigns and elections became less polarized than at any time in the past two decades. Negotiations with teacher unions and other employee unions became smoother, even

though the resources available to meet employee needs did not increase.

Phase Three: Implementing the Middle School Structure

Phase Three concentrated on restructuring the delivery system into a K-5 elementary and a full 6-7-8 middle school configuration. This simultaneously created the space needed in the elementary schools and met the particular age-related needs of children in the middle grade years more effectively.

Practically, this phase focused on the decision making necessary to open a third middle school building. Since geographical boundaries define attendance areas as well as community neighborhoods, assignment of sixth graders and reassignment of seventh and eighth graders to particular middle schools posed inevitable problems. These problems would have to be worked out in the political arena of the community.

During Phase Three, the district shifted from a long-standing pattern of four junior high schools feeding into two four-year high schools to a pattern of three middle schools feeding into two high schools. The old boundary solutions that had evolved with the configuration of four junior and two senior high schools were not going to work with the new configuration.

The necessity of geographical change created an opportunity to achieve a socioeconomic balance across the three middle schools that would be educationally better for the children and the community. The building to be reopened as a new middle school had been one of the junior high buildings previously closed. This was a building in an inner-city neighborhood with a very poor socioeconomic image in the community. At the same time, another of the existing middle school buildings had a particularly elite image. The new configuration called instead for three middle schools, all balanced, all mixed, all excellent.

The stage for this phase was set once again with data. The geographic nature of the problem led to further expansion and diversification of databases. Software was purchased to implement a geographic information system. This new database would increase transportation efficiency, provide projections of enrollment changes by individual school attendance areas, and define new attendance area boundaries. Information on land use, housing, major developers, and movement of individual families was integrated with the existing census tracts data for school attendance areas.

Removal of sixth graders from the elementary schools alleviated crowding in two locations and created the space needed for curricular enhancements in all other buildings. To create space for curricular enhancements at all primary facilities, building additions were needed at two locations. A bond issue was proposed to fund the needed additions.

One of the two schools affected, located in a low socioeconomic neighborhood, had been a K-3 school for several years because of its small physical facility. With passage of the bond issue and completion of the addition to this school, it would also become a full, K-5 primary school.

Curricular expansion included technology classrooms. Space constraints had forced the district to limit computer labs to those few buildings that could accommodate them. This had led to uneven student access across the district. In all buildings, adequate space was lacking for support programs, including nationally recognized music and drug/alcohol programs. The goal of continued integration of special education facilities and personnel into each of the primary schools also required more space in all but a few of the buildings.

These changes were accomplished through a community-wide process, just as in Phase One, with extensive community input prior to making any of the final decisions. The reasoning behind the proposed solutions was carefully detailed and disseminated to alleviate the fears that might be encountered in proposals for change. In spite of school closures, reorganization of the secondary schools, and adoption of the middle school concept, bond issues for school additions passed by a 2-to-1 margin, with a 70 percent voter turnout.

Phase Four: Focus on Individual Learner Outcomes

The Great Falls Public School District is now moving into Phase Four, which might best be characterized by the switch from aggregate measures of educational quality to individual learner outcomes. Preparation of students for

the year 2000 is now the guiding goal of the district. With its financial house in order, grade levels reorganized, and school buildings reconfigured, the district is in a position to build on what it has accomplished. The basic goal throughout the strategic planning process has been to address the question of which delivery system would create the best learning environment for a diverse and changing student body. The three prior phases paved the way toward making the most effective use of resources. External constraints on planning were loosened, and lead time for actions was created.

The curriculum has been revised to increase technology in the classroom, with K-12 access to state-of-the-art electronics through videodisc, computer, and satellite dish communication. The testing program is now congruent with the learner outcomes designed by the district staff.

Phase Four has seen more emphasis on the human element in information sharing. Regular trustee classroom visitations have been instituted to maintain regular contact between faculty, students, and decision makers. Administrative visitations follow a similar pattern so that superintendent, administrative cabinet, and senior technical personnel keep in touch with student, teacher, and classroom needs.

Personnel development programs have more than tripled and are available to teaching, technical, classified support, and administrative personnel. A better trained employee is the outcome of this investment. Productivity has improved throughout the district staff, and each salary dollar goes further in accomplishing the district's mission.

Database collation has continued through Phase Four. Special education enrollments are being examined to determine whether the accuracy that has been obtained in anticipating changes in general education enrollment can also be achieved in special education. The Geographic Information System (GIS) is being put in place to improve the accuracy of forecasting year-to-year enrollment changes at individual elementary school buildings.

While the focus of Phase Four is squarely on individual learner outcomes, the earlier emphasis on continual expansion of databases is being maintained. Full integration of databases into strategic decision making requires that they be extended, maintained, and used. The process becomes self-maintaining to some extent, as board and community familiarity with data-driven management increases, and as the staff comes to expect the continuing use of data for decision making. □

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S.N.A.P.
Student Needs As Priority
(A Model for Budget Decision Making)

Joseph F. Lasky

The last several years have presented the educational community a series of critical budget decisions, because of a lack of adequate financial resources to support programs and services to students. Because of this dilemma, parents, administrators, teachers, communities and Boards of Education are faced yearly with choosing what to keep or what not to keep; what to reduce or what not to reduce; what to eliminate or what not to eliminate.

No empirical data clearly gives the needed direction as to cause and effect between services and programs and outcome of student performance. Therefore, when the decision makers have to determine budget reductions, they do so based on the perceptions and values of significant individuals and special interest groups within the community.

It would be extremely wise for all individuals who have the final responsibility of determining budget decisions to be aware of the value dynamics in forcing decisions. Values do drive the final decision. What is needed, considering the lack of hard empirical research, is a process to solicit values from the key actors in the educational play to help the decision makers.

The STUDENT NEEDS AS PRIORITY (S.N.A.P.) model forces individuals and groups to focus on their value system in a systematic manner and quantify their perceptions so they can be reported to the decision makers in the budget process, which are the Boards of Education.

The STUDENT NEEDS AS PRIORITY MODEL is simplistic in design, as it focuses on student needs as the driving force. All forces surrounding the educational community tend to agree that no reduction should take place if that reduction is going to adversely impact the student in the classroom.

S.N.A.P. MODEL

However, the difficulty arises because almost everything educators promote can be related back to the classroom. All programs, services, and functions do have significance to certain individuals in the community. It seems useless to force arguments as to whether services and programs have value but rather to discuss a method of value ranking. The S.N.A.P. model does exactly this.

PROCESS STEPS

First, Boards of Education must identify a series of clearly defined mission goals and statements for students. The mission and goals would detail what the community expects and wants from the school system to meet student needs.

Second, once the mission and goal staements have been accomplished, the S.N.A.P. model of priority ranking would be implemented using the following definitions.

PRIORITY ONE — Services and or programs that have immediate and direct impact on all students on a daily basis. These services and programs can clearly be shown to relate to the district mission and goals for students. (If the services or programs were to be eliminated, the student would experience an immediate and significant loss.)

PRIORITY TWO — Services and/or programs that have an immediate and direct impact on those providing for students' needs at Priority One. Level two priorities can be catagorized as services/programs that if withdrawn would impact the providers of services at Priority One immediately or within a three month period of time. If Priority Two services/programs were eliminated the mission and goals of the school district would and could not be carried out.

PRIORITY THREE — Services/programs if eliminated would impact the student from accomplishing their needs, but the impact would not be felt directly for at least one year after withdrawal of services. Priority Three services/programs would mainly be those types of conditions that provide backup to the Priority Two catagory.

PRIORITY FOUR — This category of priorities includes services/programs that clearly do not reflect the mission statement or goals of the school district. Services/programs in this category could be delivered through other means outside the educational setting, or they may be those functions that were once highly valued by educators and the community but no longer. Priority Four would also concern itself with efficiencies of services. Any service that could be delivered more efficiently by other strategies or techniques would qualify at this priority level. Priority Four would also include services/programs that may exist within the educational setting that could be self-supporting.

METHOD OF FORCING VALUES

The Boards of Education should determine the groups and individuals they would like to solicit for input. Then these participants involved in the budget decision making process should be trained so that they have an understanding of the mission and goal statements of the district coupled with a working knowledge of the four priorities. The Boards should take into consideraion a consumer/consumption model in establishing input groups. The consumer/consumption model is a model in which those individuals affected mostly by the possible reducations should have the most input. One would not ask a car dealer to rank or value the services of his operation, rather the car owner using the services would do the evaluating. Students, teachers, parents and other building level individuals need to play a significant role in determining priorities.

DATA COLLECTION

The method of collecting value/perceptions may take two major focuses. First, all the programs and services available which are currently being offered in the educational setting could be listed. Then the input specialists could rank each according to the priorities criteria. One ranking may be a broad based general approach (see example A) or the other a more specific and detailed analysis (see example B).

Example A
(General)

	Priority				
	1	2	3	4	DK
Teachers	0	0	0	0	0
Principals	0	0	0	0	0
Secretaries	0	0	0	0	0
Superintendent	0	0	0	0	0
Assistant Superintendent	0	0	0	0	0
Transportation	0	0	0	0	0
Athletics	0	0	0	0	0
Art Program	0	0	0	0	0
Math Program	0	0	0	0	0
Music Program	0	0	0	0	0
Science Program	0	0	0	0	0

Example B
(Specific)

	Priority				
	1	2	3	4	DK
Elementary Teachers	0	0	0	0	0
Junior High Teachers	0	0	0	0	0
Senior High Teachers	0	0	0	0	0
Art Teachers	0	0	0	0	0
Music Teachers	0	0	0	0	0
Elem. Art Teachers	0	0	0	0	0
Secondary Art Teachers	0	0	0	0	0

The second focus would engage groups in the rating of the priority categories for each service program that is currently being offered within the system, using group concensus through facilitation. This focus would elicit more dialogue and sharing among group members. New values and perceptions could evolve during the interaction. Each group would reach some form of decision for each service program reviewed.

Either of the two focuses would force the participants to clearly look at the missions and goals; these goals would then be translated onto value priorities.

These two methods could be organized under a data tabulation method and could easily be correlated and analyzed based on the populations assessed.

If the DK (Don't Know) category is marked significantly for any one program/service, the Board of Education would immediately realize the need to provide more information to the raters.

The data collected may be easily translated into a quantitative summary, giving the Boards of Education clear data as to community/staff perceptions of student priority needs. The Boards of Education would then use Priority Four ratings of services/programs for budget reduction. If similar budget problems persist over a period to time, logitudinal data could be kept. Reduction in subsequent years could continue to focus on Priority Four until all services programs in this priority are exhausted.

The S.N.A.P. Model and the data collected should be communicated to the citizens, so that they will clearly know what reductions could take place if budget cuts were necessary.

SUMMARY

First, the S.N.A.P. MODEL recognizes that empirical data as to the cause and effect relationship between service programs and learning is not available to assist board members in budget decision making.

Second, perceptions and values are the final force in determining outcomes of any budget.

Third, because perceptions and values play such an important role in the budget process, Boards of Education need to have a method of qualifying these perceptions/values in a systematic manner.

Fourth, priority could be given to the consumers perceptions/values of programs/services.

Fifth, once the data is established, Board members should concentrate on Priority Four for possible budget reductions.

Sixth, the final decision makers in every case must be the Boards of Education. However, the more information they have as to their constituents' perceptions/values of educational services will assist the Boards of Education in making better budget decisions.

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SECTION 5

NEW REVENUE SOURCES

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Writing Grant Proposals: Dispelling the Myths

Sharon O'Bryan-Garland and Robert D. Larsen

Finding enough money for all the deserving projects is a perpetual headache for local school administrators. Many school districts look for external funding and grants to finance special projects in their schools. This article seeks to dispell some of the myths about seeking funds through grants. Uncovering the reality of writing grant proposals should help to banish the mental obstructions that often keep administrators from tapping this important source of funding.

Myth

Only a small group of knowledgeable people can write successful grant proposals.

Reality

Successful grant proposal writing is in many ways an art, but it is one that can be acquired. The vast majority of people who are considered successful grant writers pick the brains and the bones of previously successful proposals. Reviewing such proposals, available under the open records law from various federal and state agencies, and carefully studying each grant's specific requirements, cited in back issues of the Federal Register, will provide the necessary background.

Successful grant applicants also keep their focus and their ideas matched to the requirements of the individual funding agency. By responding directly to the specific requirements of the Request for Proposal (RFP), application kit, or other literature provided by the granting agency, one can acquire grant proposal writing skills.

Myth

Grants have been severely cut back by the current federal administration, and only a few are given out.

Reality

A comparison of this year's proposals for grants to those of the last fiscal year shows that many of programs were maintained at existing levels or were given an increase in appropriations. To determine the probability of receiving funding, ask the granting agency for the number of applications from previous years and the number awarded. Agencies will generally furnish this information upon request. It may be necessary in some cases to put your request in writing in accordance with the open record law. The success rates may range from a small percentage to over fifty percent, depending on the source of funding.

Even though funding may have been maintained at previous levels, the granting agencies may have shifted emphases. Follow the RFP, and, when possible, personally contact agency staffs to discern the shifts.

In addition to federal funding resources, excellent opportunities exist with state agencies, private foundations, and private corporations.

Myth

Only big-name school districts receive grants.

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Reality

Large staffs dedicated to grant work are, indeed, an asset to districts seeking external resources. However, individuals who express their particular ideas and expertise lend a freshness and enthusiasm to the process that is often missing from the experts' proposals. Assembling words in a nice flow with enthusiastic ideas increases the possibility of funding.

Do not discount your chances because your district is small and you alone are writing the grant. Increasingly, grant agencies are trying to fund first-time applications and to establish a more equitable geographical distribution for their awards. Previous grant recipients may have been to the well once too often. Although the technical aspects of your grant may not be superior to the large staff proposal, your chances may be enhanced by lack of experience.

Another distinct advantage of large districts is their ability to lobby the funding agency. However, lobbying techniques are used most effectively through Congress and state legislatures, and small districts have the same degree of access as large districts.

Forming a consortium with other small school districts will also strengthen a proposal. Granting agencies typically like consortia that are well-structured with sound administration. Specifically, the lines of authority and responsibility must be clearly delineated.

Myth

Schools must make a large budget commitment in matching funds to support the grant.

Reality

In some cases, this may be true. However, by carefully selecting the funding agencies, you may keep matching monies at a minimum.

While there may be a specified need for a local match, this is often an "in-kind" match. By in-kind funding, grant agencies typically mean the provision of office working space, custodial services, paper, and "release time" of staff and faculty to implement the project. Release time does not necessarily mean an increase of cost to a school district, but may mean permitting individuals to work, usually on a part-time, over-load basis, on grant-related activities. Creative scheduling, such as dividing the teaching load or asking the faculty to work overtime, may provide local matches at little or no additional monetary cost to the school district.

Myth

Rewards are great to the individual seeking grants.

Reality

Although debunking this myth may seem counter to the theme of the article, the reality must be addressed. Although the reward system is slowly changing, some frustrating negative aspects remain for individuals pursuing grants.

Valid ideas for proposals often begin in the classroom with faculty members. But faculty are, in many ways, discouraged from pursuing grants. Full-time teaching load, attitudes on the part of administrative grant personnel toward competitive ideas, and the lack of timely information about grant applications can impede faculty participation in the process. If a faculty member is able to overcome all of these hurdles, he or she may soon be out of the classroom and in administration writing more grants.

Acquiring a grant often puts the writer in the spotlight with increased travel budgets, new equipment, staff assistance, and office accomodations. Colleagues may view this as favoritism and react with jealousy.

Even good ideas may cause frustration by falling on sterile ground, whether due to administrative problems, envious colleagues, or approaching incorrect funding sources. If there is frustration at failure and frustration at success, it can be argued that the best alternative is not to begin. However, based on our years of experience in grants, the rewards do outweigh the hazards and liabilities. Individuals should be encour-

aged to pursue grant writing opportunities to bring their ideas to fruition.

Myth

There is a high rate of rejection. A lot of work with little or no return goes into writing a grant proposal.

Reality

The rejection rate is 100 percent for proposals never submitted. Grant writing is time consuming, but rewarding.

Myth

The school administration does not have to take an active role in grants.

Reality

Without the support of the administration, a successful grant award is doomed from the outset. The only authority who can commit the resources, whether "in-kind" or real, is the administration. It is imperative in pursuing a grant that the administration be made aware of the idea from the beginning, be kept aware of the progress, and be solicited for review and comments throughout the process. The administration cannot be expected to approve a project without a firm understanding of what is entailed and how it will benefit or affect the system.

Reviewers of grant applications are perceptive in identifying proposals that have only tacit support of the school administration.

If the proposal can be institutionalized at the end of its external funding, its chances of receiving approval will be greatly enhanced. Institutionalizing the grant means that the school is willing to assume financial responsibility to continue the work in gradual increments, finally becoming fully responsible for the project.

Myth

Bigger is better -- long proposals and large budgets are impressive.

Reality

Reviewers demand quality and cost effectiveness, not quantity. The key is to be direct and succinct. The more the proposal addresses, the more there is to criticize.

Myth

It is best to either submit a "bare bones" budget or to pad the budget to allow for cuts.

Reality

The real answer lies somewhere in between these two myths. It is best to realistically reflect what you are trying to do in your budget. Miracles cannot be performed on a bread and water diet, yet the days of caviar are gone.

When establishing the tasks and the time frame, the writer must critically assess the resources necessary and those that are actually available. Reviewers evaluate the matching of tasks and resources on the basis of reasonableness. If the goals of the project appear to require more than the district is able to dedicate to the task, the proposal has little chance of a favorable review. The key is to make the proposal realistic.

Myth

Notice of RFP's give too little time to prepare a proposal adequately; all grant applications are due yesterday.

Reality

RFP and grant notices clearly identify closing dates which are seldom revised and are strictly followed. Grant applications mailed late are not considered. The lead time for grants will vary from several months to weeks or even days. Thus, one should be prepared to assemble grant applications in as short a time as possible.

Although the policies of different agencies vary, some agencies will accept the body of the grant proposal at the deadline and allow support letters to follow within a week or two. If you have

only a short time, we strongly recommend that you call, not write, the agency for confirmation of their deadlines.

The following chart provides additional recommendations to follow when preparing grant proposals.

RECOMMENDATIONS FOR PREPARING GRANT PROPOSALS

DO:

- Select no more than two people to be responsible for writing the grant in a clear, concise manner.
- Be certain that you have contacted all personnel who are involved or must give institutional approval as early as possible.
- Get support letters from key resource people within your institution and from outsiders who may be affected by the grant.
- Be aware of the deadline and establish a firm time-line.
- Be sure your objectives are realistic, considering the resources and the time allotted.
- Become acquainted with the funding agency staff by phoning or personal contact. Learn the composition of the review panel, and address their interests in the proposal.

DON'T:

- Forget to do your homework. Your proposal will be ineffective if it neglects all facets of the problem, resources, faculty interests, and interests of the agency.
- Be wordy or flowery. Communicate effectively, addressing the points of the RFP.
- Submit the same application to several agencies. An informal network exists between funding agencies.
- Submit after the deadline.
- Proceed without an appropriate budget.
- Minimize the importance of lobbying and using political contacts.
- Quit just because you are not funded. Request review comments under the open records law. Rewrite and resubmit. There is always more than one funding source.

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EDUCATION FOUNDATIONS

The Catalyst that Mixes Corporation and Community To Support Schools

BY GEORGE P. WHITE and NICHOLAS H. MORGAN
Executive Board Members, Central Bucks Education Foundation, Doylestown, Pennsylvania

Steve Spoerle was on the phone early one morning last September. Spoerle, a vice president at Betz Labs in suburban Philadelphia, wanted to share some good news: His company's contributions review committee had just approved a $2,500 donation to the Central Bucks, Penn., Education Foundation for start-up costs.

Betz also promised further financial assistance for the academic initiatives identified by the foundation as its top priorities.

Spoerle's colleagues on the foundation board shared his enthusiasm. The money and support had begun to flow. Private support for the public schools in Central Bucks County had become a reality. Now, only time and imagination limited the foundation's ability to help the school system.

The Central Bucks fund is one of an estimated 1,500 public education foundations established by cities, towns, and school districts of varying size across the country. Sixty-five of these grassroots groups belong to the Public Education Fund Network, based in Pittsburgh.

Growing Phenomenon

Local education funds—privately funded, nonprofit, and self-governed, by public-spirited citizens—serve as an independent third party between the school and the community to support excellence and innovation in the public schools.

The foundation serves as the catalyst that mixes corporate and community support—money, services, and equipment—that might otherwise remain beyond the reach of hard-stretched school budgets.

A recent Pennsylvania study of school funding conducted by one of the authors showed 78 percent of local school budgets were consumed by employee salaries and benefits, and up to another 15 percent was devoted to physical plant and debt reduction.

> ***"Serve as an independent third party between the school and the community ..."***

The few remaining dollars must support the entire range of educational programming, and that percentage has been declining over the last five years because of salary and benefit pressures and the needs of an aging physical plant.

Fits Everywhere

As school leaders seek alternate sources of funding, an education foundation may offer the appropriate means.

In rural school systems, where the small-town atmosphere means a population is stable and tight-knit, strong ties to the local school can bring a powerful response to a call for help that doesn't involve a tax hike. An educational foundation in such settings can tap those emotional roots and free local supporters to think about their school in new and creative ways.

Suburban school systems are equally enthusiastic. As bedroom communities, the suburbs usually watch helplessly as so much talent and energy goes off to the city where they work five days a week. But these well-to-do commuters care about where they live, and often they have chosen their community for reasons that include the quality of the public schools.

Thus a large pool of resources exists among people who may not know how to become involved. An education foundation permits them to help without getting entangled in difficult issues like taxes and without devoting large amounts of time.

Finally, urban schools witnessed the beginnings of the education foundation movement in the late 1970s. Parents and school leaders, concerned about declining quality and the erosion of financial support, found in the private foundations a cost-efficient channel for addressing school quality.

Today, some 65 predominantly urban school districts have foundations belonging to the Public Education Fund Network. Their annual budgets range from $3,000 in Northampton County, N.C., to $2 million in Los Angeles.

Unexpected Spinoffs

In each of these settings, local entrepreneurs, corporate executives, educators, and prominent citizens consider the education foundation a means for positive involvement in the local school system without the debilitating wrangling that often accompanies school board politics.

Moreover, as these foundations have grown, a number of unexpected results have surprised the beneficiary schools.

For example, in the Central Bucks School District, a community group that sponsored a fledgling Artist-in-Residence program approached the local foundation about expanding its services so every child in the district could have first-hand contact with creative artists.

Someday, the Central Bucks foundation may be able to step in when state support dries up. Pennsylvania recently discontinued its program of mini-grants to teachers with innovative curriculum ideas, leaving the Central Bucks district unable to expand to every fourth grade classroom a book and slide presentation on local history developed by one teacher.

In this instance, a foundation might identify a need and move quickly to provide the modest amount of funds needed to return a large benefit to the district and its children.

Tapping Good Will

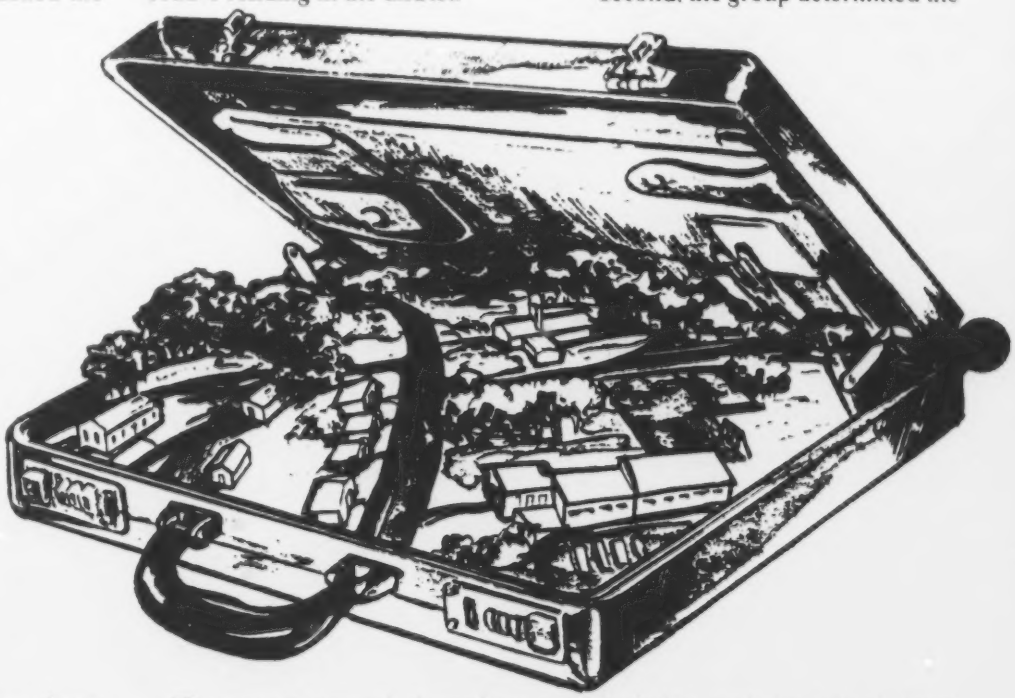
How can districts go about starting a foundation?

In Central Bucks, the assistant superintendent responsible for programming, curriculum, and instruction recognized early in his tenure the impact of the perennial money squeeze on instructional quality.

Teachers and administrators in the district were an enthusiastic group, constantly developing new program ideas or improving existing ones. But with funding limits, frustration grew rapidly because there often was no money to support even the very best ideas.

In discussing these frustrations with the local community, the assistant superintendent found an extraordinary desire to help in solving these problems and in ensuring the schools stayed vibrant and healthy.

Soon, he was heading up a small group of local leaders to explore the possibility of aiding the school system in some way. The committee consisted of two local entrepreneurs, a retired school teacher, two members of the school board, and a corporate executive residing in the district.



The group's research showed several urban centers had had great success in establishing educational funds. The committee decided the concept could work just as well in a suburban setting as in Cleveland, Pittsburgh, Providence, or Los Angeles.

That decision was key. The legal process to establish a foundation was set in motion, and the organization began to take shape. The planning committee expanded its membership to include a retired local businessman and an attorney and began its self-education in setting up a nonprofit organization. The group obtained free legal services to develop the necessary bylaws.

At a series of meetings, the committee hammered out the purposes, goals, and mission statement of the organization. Finally, after five months of planning and grass-roots work in the community, the group named its first board of directors.

Retain Independence

Early on, the committee had decided that it would *not* continue as the first board for several reasons.

First, the members sought to involve participation as broad as possible in the foundation.

Second, the group determined the foundation and the school board must remain entirely separate to avoid conflicts of interest, whether real or apparent.

Third, the committee wanted to be clear from the start the foundation would *not* usurp the role of the school board.

And finally, the committee wished to avoid the negative and divisive political issues which so often afflict school boards.

The group recruited its first board members from a variety of backgrounds, using what it came to call the "four W's test." Each member recruited had to meet at least three of

How To Start a Local Education Fund

The Public Education Fund Network and the authors recommend these steps in creating a local education fund:

1. Identify a need for a local education fund (LEF) in your district.
2. Research existing LEFs, particularly those in school districts of similar size and demographics.
3. Convene steering committee to plan strategy and affiliation.
4. Determine mission and goals and type of board of directors needed to carry out program.
5. Develop bylaws with help of an attorney.
6. Recruit and elect board of directors. Use the 4 W's: wealth, work, wisdom, "with-it-ness."
7. Obtain tax-exempt status from the Internal Revenue Service.
8. Create a committee structure.
9. Begin program development and plan fund-raising.
10. Publicize the goals and needs of the local education fund.
11. Start fund-raising.

The Public Education Fund Network serves as a resource for individuals and organizations interested in exploring the local education fund concept. The network provides information, materials, and advice at no charge.

For more information, contact Gerri Kay, executive director, Public Education Fund Network, 600 Grant St., Suite 4444, Pittsburgh, Pa. 15219, or call 412-391-3235.

the four w's—wealth, work, wisdom, and "with-it-ness."

Wealth refers, of course, to the ability to support the mission of the foundation with resources both financial and human.

Work refers to essential worker bees who carry out the duties of the foundation.

Wisdom signifies understanding of local problems, the community, and education, or specific skills such as public relations or finance.

With-it-ness refers to the extent the prospective board member is tied in to the local community through its local networks of associations, friendships, churches, clubs, and the like.

Targeted Projects

The makeup of the Central Bucks Education Foundation Board, like any board, reflects the needs of the particular community to which it is tied. It consisted originally of:

- a professor of education,
- a retired school teacher,
- the president of the local bar association,
- the director of development communications at a nearby major university, and
- a member of the local chamber of commerce board of directors.

Also involved were:

- a corporate executive,
- the senior vice president of the largest corporation located in the school district,
- a vice president of a regional bank holding company,
- a local entrepreneur, and
- the local superintendent of schools, *ex officio*, to act as liaison.

The Central Bucks Education Foundation, now incorporated, meets regularly. The foundation has received 501(c)(3) tax-exempt status from the Internal Revenue Service, secured office space donated by a local business, developed a three-year fiscal plan and a comprehensive public relations plan, and made a key decision to encourage both unrestricted gifts as well as gifts targeted to specific projects.

The foundation's first four initiatives are:

- Artist-in-Education Program, to support further development of a K-12 Artist-in-Residence program in all 15 schools;
- Teacher Incentive Grants, to support a grant program in the district to encourage creative and innovative classroom projects and problem solving;
- New Technology, to provide funding for the development of a computer writing lab and a computer-aided design lab in the high schools;
- Asian Studies Program, to provide start-up funds for the development of an interdisciplinary program in Asian studies.

The list is designed to generate widespread interest among a variety of constituencies throughout the district. All grade levels are represented, and differing levels of complexity and cost are involved.

Untapped Prospects

Solicitation by board members already has generated gifts, including the support from Betz Labs. Appeals will be made to key individuals, corporations, and other foundations. The Central Bucks foundation will solicit both large donations and broad-based support in smaller amounts. Equipment and service donations are also encouraged.

In addition, the foundation is exploring an exciting new initiative: endowed chairs, like those at the university level, for top-flight high school teachers, underwritten by foreign governments and major international corporations.

The excitement and enthusiasm already generated in the Central Bucks community by the foundation is extraordinarily encouraging. It helps to confirm the belief there is considerable support for public school systems out there—if it can be tapped outside the normal channels which can become clogged with political issues and turf battles.

The education foundation which provides private support for public education is an idea whose time has come most emphatically for school systems across the United States.

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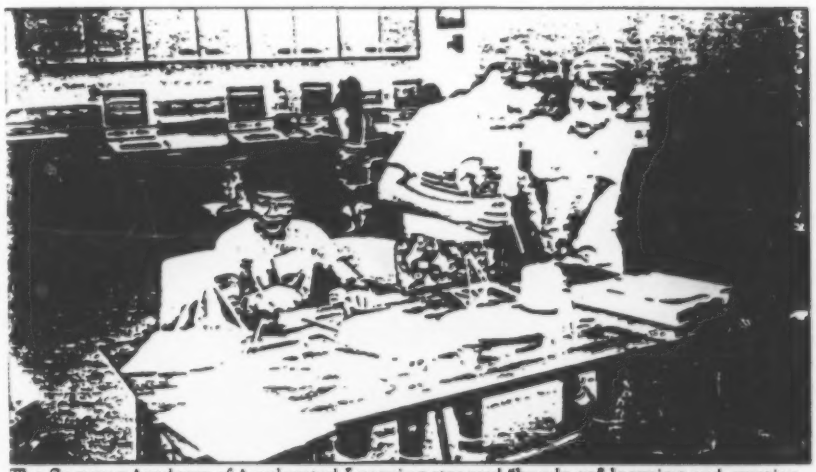
Creating a Public Schools Foundation

by Marvin E. Edwards, Ed.D.

Problem: How to create a bond between the private sector and the public school system? How to involve community leaders in the schools? How to offer special programs to students and educators that will emphasize academic, social, professional and artistic disciplines?

Solution: Create a public schools foundation to identify areas of emphasis and raise funds to support each.



The Summer Academy of Accelerated Learning stressed "hands-on" learning and creative thinking skills. (Topeka Public Schools)

Then sit back and watch the wonder on a child's face who discovers the joy of literature in an accelerated summer program. Or help youngsters at four elementary schools grapple with critical issues facing kids today. Allow a top–notch teacher to attend a skill–enhancing workshop. Or see the one–on–one benefits to many students by bringing an artist–in–residence into the schools.

A Topeka, KS., citizens' group comprised of parents, business leaders, school administrators and teachers did it all, and in a single year's time.

What is a public schools foundation and how is one set up? Topeka school administrators weren't sure either when they first started talking about creating such an organization in mid–1985, prompted by strong citizen interest. No one knew where the many ideas coming in were heading, but they plunged onward. Some legal research by school board attorneys found that Kansas allows citizens to form a local school district, yet may operate in connection with it to serve the district's needs. The state requires no enabling legislation where a not–for–profit foundation is created by independent citizens.

With that, the superintendent, with blessings from the board, set about developing a 16–member citizens' task force to study the foundation concept and to recommend a model for the Topeka Public Schools. A basic criterion was that the task force be representative of the community and have the respect necessary for the public to see the seriousness of the effort. Among the 16 people chosen were the mayor, the local newspaper publisher, an executive for United Way, a state senator, a local judge, a bank president, a college administrator and various business owners. The goal was to recruit strong public, corporate and business leaders who reflected the city's ethnic diversity.

Once founded, the planning task force developed By-laws and Articles of Incorporation. The group studied other foundations across the country and received technical assistance from the executives of the Public Education Fund, a Pittsburgh–based, national organization that assists in forming local initiatives such as Topeka's.

The task force determined that a Board of Directors made up of 33 members of the community with similarly diverse backgrounds as the original 16 member task force should be created. Each director would serve a three–year term of office, with eleven members in each of three classes, to ensure continuity

(Continued on next page)

Foundation *(continued from previous page)*

Enthusiasm for the director's positions ran high, and included all but three of the original 16 members. The entire proposal was taken to the Board of Education for endorsement in February 1986, and the Topeka Public Schools Foundation was lauched.

The newly constituted Board of Directors met, elected officers and made plans to officially introduce the foundation to the community. One of the president's first duties was to establish working committees, to be assigned based on board members' preferences. Standing committees included: Allocations, Finance, Nominating, Public Information, Fund Raising and the Executive Committee. The board decided to meet monthly during the first year, with the option of less frequent meetings after the organization was in operation.

October was targeted as the kickoff month for introducing the foundation to the community and holding the first fundraising function. Even before any real efforts were made to raise funds, money began to flow in—a most pleasant surprise and a great boost to the enthusiasm of the board and school staff watching from the sidelines. The Independent Insurors Association gave $10,000, and the school boards' attorneys $2,000 within days of the announcement of the foundation's formation. Smaller gifts of $100 and more started coming in sporadically.

The kickoff function was a by–invitation gathering paid for by foundation board members featuring Sen. Nancy L. Kassebaum who spoke about the importance of the schools foundation concept . The board members recommended the invitees, identifying potential donors such as school personnel, school board members and the foundation board members themselves. Approximately 300 individuals were invited, and about 200 attended.

A larger–scale drive for funds was planned to follow the kickoff function. Local businesses were targeted for year–end tax write–off gifts. A mailing to another special audience—2,000 members of the Topeka Area Retired Teachers Association netted approximately $10,800. A local trust fund contributed $3,000 to the cause.

One dilemma faced by anyone starting a foundation is the 'which comes first, the chicken or the egg' syndrome relative to raising funds vs. having projects to fund. The Topeka Public Schools Foundation wrestled with this dilemma. Board members on the Fund Raising Committee were saying, "These firms we're contacting want to know how the money will be spent before they decide if, and how much, to contribute." The Allocations Committee was saying, "How do we decide what to fund until we have some idea of how much money will be raised?" In addition, the Finance Committee had the problem of developing a budget with no idea of how much money would be raised nor how it would be spent.

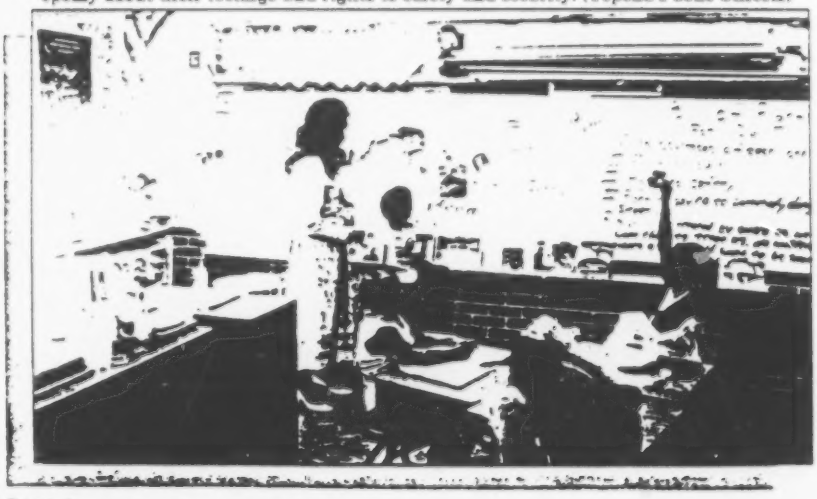
'One dilemma faced by anyone starting a foundation is the 'which came first, the chicken or the egg' syndrome relative to raising funds vs. having projects to fund.'

The foundation board of directors looked at types of projects being funded by similar foundations across the nation. Members of the school district administration and the local teachers' association presented perceived areas of need. Finally, the board asked the school administration to make recommendations on disciplines to cover and specific projects to fund, along with cost estimates. The projects, they said, should cover a broad spectrum of interests and needs, as these would establish, for many in the community, the role of the foundation.

The areas of emphasis finally approved were curriculum enhancement, social needs, staff development and fine arts. The specific projects accepted for funding were:

1) a summer academy for selected students in grades 5–8 for accelerated learning in math, science, literature/creative writing and technology;
2) fellowships for certified staff members to attend skill–enhancing workshops and seminars;

The Foundation-funded personal safety curriculum program has students talking openly about their feelings and rights to safety and security. (Topeka Public Schools)



TIMELINE

for the Topeka Public Schools Foundation.

1986

APRIL 16
Board of Education endorses foundation formation.

MAY 20
First foundation board meeting.

JULY 15
Special luncheon orientation meeting of foundation board with Public Education Fund representatives.

JULY 16
First $12,000 donation received.

OCTOBER 22
Kickoff reception for 300 invited guests; funds provided by foundation baord donation.

OCTOBER 23
Brochure distributed to schools and administrators explaining foundation.

NOVEMBER – DECEMBER
End-of-year fundraising via personal contacts and letters to those invited to reception, retired teachers' association and Chamber of Commerce membership.

1987

JANUARY 20
Selection of first four projects for funding, and targeted areas for 1987 funding established.

MARCH 17
Fundraising successfully completed for initial projects.

APRIL 21
Annual meeting closes first year.

3) a personal safety project for use in four elementary schools, addressing issues such as alcohol, drug and child abuse, latchkey children, etc.; and
4) a year–long artist–in–residence program to reach all grade levels.

By the annual meeting in April, the foundation board could look at a year of successes: The foundation had been warmly received by the community, with no negative reactions voiced, the initial funding efforts had raised enough to cover the initial projects, and the projects selected were ones that would visibly enhance educational opportunities for students in the district.

From the school district's perspective, the foundation was creating the desired bond between the private sector and the schools. Leading citizens were once again actively and enthusiastically involved in the schools, and programs which never would have been more than wish–list ideas were becoming realities.

Dr. Marvin E. Edwards, Ed.D., served as Superintendent of Topeka Public Schools. He recently accepted the position of Superintendent of the Dallas Independent School District.

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FOCUS

PUBLIC RELATIONS

by Frances Powell, assistant to the superintendent for communications, Tulsa Public Schools, Oklahoma

Frances Powell

William Pelava

Robert Henley

How To Set Up a High School Foundation

The tighter school funding gets, the more educators search for new sources of help in meeting students' needs. Business partnerships, school adoptions, broad-based volunteer programs, and even active solicitation of contributions have become commonplace in American schools.

Few of these resources, however, offer the long-term planning and security of a high school foundation. When that foundation is organized, incorporated, and administered by dedicated school alumni, it may help realize greater support. For instance, while the endowment itself may pay for such long-term needs as computers, equipment, staff development, or landscaping, continuing alumni involvement may help the principal solve small problems such as a need for tutoring services or a shortage of mouthpieces for the football team.

The principal's leadership is the key to organizing an alumni foundation. The ability to communicate needs and draw support and cooperation from others is paramount.

For this leadership, the principal should take stock of the school's alumni. Retired, successful people may be the best resource. Those who have been successful in organizing class reunions or who have been active in organizing church activities are also excellent resources. Those identified should not have other major commitments and should possess "the spirit" necessary to help the principal build an educational environment for excellence in their alma mater.

One or two of these leaders, the principal, and an attorney who is an expert in school and tax law then should incorporate the foundation and begin the process of qualifying for tax-exempt status. The organization of the foundation should be outlined in a set of bylaws and meet the individual needs of the school and community. For example, a model foundation at Central High School in Tulsa (Oklahoma) lists six vice presidents, each dedicated to one of six major functions: educational assistance, communication, campus development, alumni membership, historical research, and alumni events. Establish at the onset what standing committees and what kind of projects will be given priority. It's easy to get off course, so goals and objectives should be determined and written into the articles of incorporation. This safeguards both the tax-exempt status and the principal's peace of mind.

It is also a good idea to organize an all-alumni gathering to enable others to have a hand in the planning, according to T. D. Williamson Jr., president, Central High School Foundation.

Thirty alumni, elected for staggered, three-year terms, serve on the board of the Central foundation. Getting out the vote is often difficult, says Williamson, because the graduation dates of these alumni span more than 60 years and names on the ballot seldom are familiar. Having candidates represent the decade of their graduation may be one solution, he says.

The Central experience has shown that older alumni tend to get involved more often than recent graduates. In the three years since incorporation, more than 7,000 of

the 35,000 graduates have donated a total $70,000 in funds or services. The key, says Williamson, is to enable people to get involved with little effort.

Exempt from this rule is the foundation president, who should be a tireless worker. The treasurer, too, must spend many hours maintaining accounts, paying bills, and acknowledging every donation with a letter that can be used to exempt the donation from taxes.

Alumni foundation members should be given life membership cards and asked for donations on a regular basis. When requests are tied to a specific project, and include complete, detailed information, the response will be greater.

Regardless of the exact dollar amount generated, foundations help renew commitment among any school's strongest support group—the graduates. ❑

SECTION 6

OPERATIONS DECISIONS

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Yes, you can cut costs without cutting quality — here's how

By Oliver S. Brown

READ MY LIPS—no new taxes. That often-quoted cliché from the 1988 presidential campaign is destined to ring through the statehouses for the next few years. The sentiment—and the tax caps that go with it—will renew the pressure on many school systems to control costs and find imaginative ways to fund new programs.

It's difficult, of course. But most school systems *can* cut the costs of many of their programs and operations—and without sacrificing quality. I say that after more than 30 years of working for more cost-effective school support services, as a school administrator and as a consultant to school systems. I've found, in fact, that economy and efficiency measures—as long as they don't cut too deeply—can maintain and sometimes even improve the quality of services.

Creative cost-cutting can preserve a program that otherwise would be eliminated or reduced. Or it can uncover funding for new, enhanced, or expanded programs. In other words, school boards and superintendents can do more for students with what they have—if they can survive the politics of cost reduction. But more about politics later.

Typically, you can pursue cost reduction down a number of different avenues: You can lower a program's cost while maintaining its quality, eliminate or reduce a nonessential program, increase revenue support for a program, or get another agency to fund and operate a program. A good cost-reduction study looks carefully at all of these options.

Sometimes you need to invest money now to achieve savings down the road. For example, it might take several years before the savings from a computerized energy-control system outweigh your investment. If you must show a financial return now, an energy conservation contractor, a public utility, or the state might agree to a "shared savings" plan. Under such a plan, you essentially borrow part of the investment money from the other party, then pay it back out of a portion of the energy savings for the first few years. Afterward, you keep all the savings.

Oliver S. Brown, a management consultant, formerly was deputy superintendent for planning and management services in the Cambridge (Massachusetts) schools.

Looking for savings

Creative cost-cutting means leaving no budgetary stone unturned. To uncover savings in your school system, try upending a few of these rocks:

1. *Plant operations.* Usually the quickest way to find money is by looking at plant operations. Almost without exception, every school system I have assessed in recent years could run its buildings more efficiently. Schools typically have between 10 and 30 percent too many custodians; more than 10 percent of the energy they use is wasted; and their cleaning materials, custodial training, and equipment are inadequate and inefficient.

Creative cost-cutting can save an imperiled program or uncover funding for new or expanded programs

Energy projects that return dividends year after year are a savings gold mine. Most school administrators don't realize you can pay for energy improvements without affecting the operating budget—through the so-called shared-savings plans I've described, or through energy grants, or through a combination of the two.

I recently visited a large secondary school in New England that annually uses 245,000 gallons of oil and 1,587,000 kilowatt-hours of electricity and has 19 custodians. Under ordinary circumstances, a typical energy-efficient, oil-heated school building of that size and in that region ought to use only 200,000 gallons of oil and 1,300,000 kilowatt-hours of electricity per year and require only 13 or 14 custodians. Potentially, this school could be saving $200,000 a year on plant operations, although a study would be needed to assess any special circumstances that might require more (or fewer) resources for the school.

2. *Plant maintenance.* It's smart to take a portion of the savings you've found in plant operations and invest it in plant maintenance. Most school boards do the opposite: They steal from future education programs by giving maintenance—especially preventive maintenance—short shrift. But buildings are like automobiles in that it almost always costs more to repair tomorrow what you neglect today.

To save money on maintenance, follow these four principles: (1) Do what needs to be done *when* it needs to be done. (2) Buy the highest quality materials—burners, door hardware, plumbing fixtures, floor finish, windows—to reduce future maintenance and replacement costs. (3) Train your maintenance workers well and supervise them carefully. (4) Take maintenance costs into account when you design renovations and new construction.

3. *Administration.* Look carefully at administration. Often, school systems do not have enough administrators overall to do effectively all the work that needs to be done. Still, through an assessment of school system organization, you sometimes can find savings through administrative cuts. In general, elementary schools need more administrative help; secondary schools and central offices sometimes can do with less.

To find administrative flab, look for situations in which an administrator's span of control is narrow. For example, a pupil services unit might have a director, an assistant director, and two supervisors. That skinny chain of command might be rooted in employee history and reflect the difficulty of dismissal proceedings. Perhaps in the past, the school system needed to reassign a surplus administrator or retain an incompetent staff member by adding someone to keep close tabs on that person. The need for the additional administrator might be gone, but the organizational structure remains.

Go slowly in filling an empty administrative post. Adding another certified administrator might not be the most cost-effective response. Examine the professional work to be done and the time and expertise it requires. For example, some of

what an assistant principal does is professional, and some is not. An administrative aide who has some management or supervisory training and who works a full day and full year might be more cost-effective in helping the principal with bureaucratic tasks—saving the principal's time for faculty, education programs, and students.

One option is for the school system to pay four or five stipends to each elementary school to support employees chosen by the principal. Giving the school rather than the central office the hiring power might be a more effective use of the money, even if it results in less standardization across the school system. A principal who has a limited background in primary reading instruction or staff development, for example, could hire specialists to help in those areas. That option might be more effective, and cheaper, than hiring an assistant principal.

Whenever someone resigns or retires, reassess what type of help would be most useful and effective. Change always is easier when a position is vacant. If you reshuffle staff members' duties, you might not have to fill the redefined job with an educator. In fact, the strongest school administrations often have some noneducators on staff.

4. *Employee benefits.* The cost of employee benefits has risen alarmingly. Most school systems' policies on employee coverage were developed at a time when these costs—especially health insurance premiums—were much lower. In those balmier days, personnel offices sometimes created part-time positions at 20 hours a week expressly to entitle part-time employees to benefits, even though the job really required only from 15 to 18 hours a week. But now, the benefits a school system pays for those same employees can equal 50 percent of their salary.

Whenever a part-time vacancy opens, decide how many working hours are needed in that position. Then institute (or try to negotiate with your union) a reasonable benefit policy for new employees. Often, staff members have dual coverage of health benefits through their spouses' full-time jobs elsewhere. Depending on the rate of your employer contribution and the cost of benefits, you could save from $1,000 to $4,000 per position by eliminating dual coverage.

5. *Transportation.* Most school systems stagger school opening and closing times so buses can make several runs. Often, elementary schools open later and close earlier than secondary schools. But few school systems take the idea of staggered opening times the next logical step. Look at the whole transportation system—both regular and special runs—to see whether you can stagger the openings of various elementary schools to equalize the loads on several bus shifts and possibly reduce the number of buses required.

In addition, take a look at attendance boundaries with an eye to increasing the number of students who walk to school and reducing the number who ride buses. For each bus you eliminate, you can save $20,000 or more per year.

6. *Teachers.* In many school systems, a combination of rising elementary enrollment and falling secondary enrollment has crowded classrooms in elementary schools and depleted classes in secondary schools. Some school systems saw that trend coming and have used reassignments, resignations, and retirements to adjust staffing levels accordingly.

Others haven't adjusted elementary and secondary school staffs to fit enrollment patterns, fearing secondary school programs would lose variety and quality as a result. But as some rural high schools have demonstrated, that needn't be the case. And remember, quality and variety are not necessarily synonymous.

One more thing: Try not to cut educational materials and equipment. That is the easiest and often the dumbest way to achieve savings. Schools tend to have too many people and not enough up-to-date materials and equipment.

Studying cost reduction

One way to proceed with a cost-reduction study is to have senior administrators perform a floor-to-ceiling analysis of the school system. The advantage of this approach is that your top staff members know the most about your schools and people. But there's a downside: A cost-reduction study often affects the responsibilities and even the jobs of colleagues. Even the perception of unfairness poses a threat to morale.

Outside help can be objective and perceived as such. An outside consultant can tap staff members' knowledge without putting individuals on the spot. And the consultant's candid opinions can be helpful. Outsiders also can absorb much of the ill will a cost-cutting plan generates.

Whoever conducts the cost-reduction study should begin by looking at the school system's goals and how the system allocates financial, human, and material resources. Most goals and related programs fall into one of three categories:

1. Primary goals, embodying the reasons an institution exists—in the case of schools, student learning and development.

2. Supporting goals, which include educationally sound and safe facilities, active leadership, and safe transportation.

3. Community goals, which reflect the primary goals of other agencies or institutions—for example, health and food services.

A school system's biggest investment should be in programs that support primary goals; its smallest investment should be in the area of community goals. Where possible, you should pursue community goals by getting other agencies to operate and fund programs to support them. Failing that, you should get others to fund the programs completely, even if the school system must operate them. And failing that, at least get others to increase funding over the current level. Investment in supporting goals should be sufficient to do the job adequately and efficiently—and no more.

Playing the politics

The technical difficulties of developing a good, comprehensive cost-reduction study pale in comparison to the challenges of implementing your plan. Barriers appear on all sides.

One source of resistance is individuals and employee groups who have the ear of certain school board members—perhaps a majority. Some employees might have assisted in school board election campaigns. Some might have been promised that if they accepted a certain reassignment, they would not be moved or fired. Whether those agreements are in writing or not, they can block necessary shifts of resources or improvements in efficiency. The answer is to try to show staff groups that it's in their long-term interest to reduce costs and reallocate funds to essential programs and services.

Other problems arise when a tax cap or other financial restraint results in draconian measures or when layoffs are based on the judgment of the superintendent and the school board. In these cases, employees legitimately might ask why they should bear the burden of layoffs when an earlier response by management could have achieved the same or greater savings through attrition.

The lame but accurate answer: Not all conditions can be anticipated. Policies and needs change. (And so, incidentally, do the people who make policy.) Public schools exist to promote the learning and

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Cost-cutting

(Continued from page 32.)

development of students: fairness to staff members is important, but the institution's primary goals must come first.

You can avoid many of the political difficulties of cost reductions by taking steps before a crisis occurs. The superintendent almost always knows some areas that can and should be reduced—but he will keep his mouth shut if he doubts the school board will support those cuts in the crunch. It's important to let your superintendent know you'll work cooperatively with him in making cost reductions.

If you decide to look for outside assistance, you have two options: A number of nonprofit organizations help schools achieve more cost-effective operations, or you can turn to the management consulting units of large accounting firms and independent consulting companies. One word of warning: In selecting a consultant, be sure you don't pay his way up the learning curve. Select someone who has gotten good results with other school systems. And be sure that the experienced person identified in the proposal will actually do substantial work on your project. Sometimes you can obtain funding for your study from foundations, government grants, local finance committees, or through shared savings.

The best way to reduce costs is to make savings a part of your long-range plan; that way, your school system's goals and priorities are clear, and your cost-reduction plan can respond to those goals. Once you have developed and implemented the plan, both you and your taxpayers will be assured that the schools are as efficient and effective as possible. Then, if you still need more money to pursue your educational goals, you'll have a stronger case.

Finally, I have to admit that cost reduction isn't a popular subject. But as I see it, it's wrong to avoid the pain of cutting costs in the face of students' overwhelming educational needs. □

How do you rate this article? Please turn to the reply card facing page 42 and circle 190 if you think it's excellent, 191 if you think it's good, and 192 if you think it's poor. Thanks.

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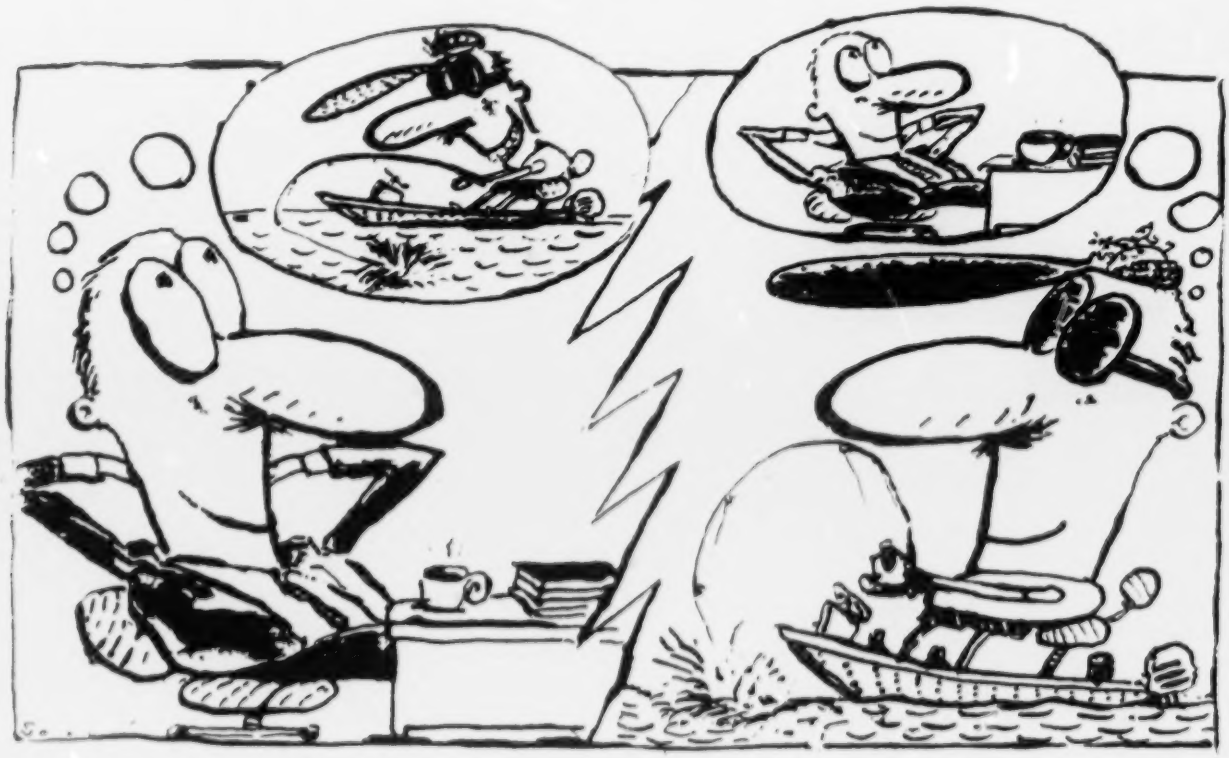

Let older employees test the waters with this trial retirement plan

By Joseph Donnelly

UNCERTAINTY haunts any school employee's decision to retire before mandatory retirement age. For most of us, retirement is a one-way exit from the familiar world of work into an untested future. Valid questions arise: Will I like retirement? Will I have enough money to live on? Will I be happy—or bored? How will my health hold up? How long will I live?

Early retirees don't anticipate how abruptly their final school year ends and might find the sudden transition to retirement traumatic. Sometimes, too, experienced and once-valued school employees have reached a plateau and are simply marking time.

Everyone would benefit from their early retirement, but these employees often stay because school employment policies make early retirement decisions irrevocable.

They needn't be. We could give potential retirees a trial period to test the water—and welcome them back if that is their wish. Just as we give students second chances in their activities at school, so might we allow our employees second thoughts in this major life-choice.

For years, some corporations have offered trial retirement either by letting employees work fewer hours or by offering a complete separation from the company for a specified period. Then the employee is able to make the final decision with the benefit of having experienced life away from the workplace.

Education has lagged behind industry in this area. But wouldn't the same idea work in school systems? Allowing school employees between the ages of, say, 55 and 62 to take a half-year trial retirement would give them enough time to be active in the community, to pursue hobbies, or to get a part-time job before facing the daunting decision of retirement.

About now, I'm sure some school board members and administrators are mouthing the words, "We can't afford it." But I believe trial retirement can make good economic sense—if a younger person is used as a substitute and the trial retiree is paid only at the level of his pension.

Let's look at the hypothetical example of John Smith, a school employee who is considering retirement. Assume your school system is trying to cut personnel costs or renew an aging staff, or both. You know that the worst thing you could do for the morale of your staff is to lay off younger employees or force older ones like Smith to retire.

But with trial retirement, Smith could give retirement a try for half of the school year. At the end of that period, he could decide to return full time to the same position or to retire fully. Six months of living on a salary at the level of his pension lets him judge if he could live comfortably if fully retired. The difference in pay goes toward paying his less-experienced and lower-salaried replacement.

...ph Donnelly is enjoying retirement after ...ing for 40 years as a teacher, then as princi... at Bound Brook (New Jersey) High School.

To determine the trial-retirement salary, each school system will need to work out its own formula with the local teacher union and state pension bureau. Under New Jersey pension rules, the trial-retirement salary for a teacher or administrator with a salary of $45,000 and 35 years of experience—like our hypothetical John Smith—would be calculated as follows: $45,000 x 35/60 x 0.92 = $24,150 annually, or $12,075 for a half-year. (Note that this is approximately 27 percent of the annual salary—a simpler way of arriving at almost the same figure.)

In this case, the school system would pay Smith $12,075 instead of the $22,500 he normally would earn for the half year he's on trial retirement. The remaining $10,425 could be applied to the salary of the substitute.

If at the end of the trial period (or possibly earlier), Smith decides to put in for full retirement, he would have had a half-year experience in trial retirement at no great financial loss. Because pension benefits in many states are based on the last year's salary or the average of several years, the school system would be obliged to reinstate the full salary for the half year the employee was absent—to ensure he received his full pension entitlement. That cost would be recovered fully from the money saved by his lower-salaried replacement.

If Smith decides not to retire, he'll go back to his job, and the school system can assign the replacement to some other position.

Whether the trial period for teachers should be for the first half of the school year or the second can be debated. In most parts of the U.S., the best test of a new lifestyle might be during winter weather, but a substitute who takes on the trial retiree's class from the beginning of the school year has a freer hand in setting standards and continuing throughout the year if the retiree makes it permanent.

The decision to retire early is difficult and personal and should not forced on anyone. Retirement can be the happiest period in life, or it can be a disaster. We owe it to faithful employees who have given us years of dedicated service to give them every opportunity to make the right choice.

How do you rate this article? Please turn to the reply card facing page 34 and circle 208 if you think it is excellent, 209 if you think it's good, and 210 if you think it's poor. Thanks.

Consider these early-retirement strategies

It's hardly a secret that the real aim of early retirement programs, including trial retirement (see main article), is to get high-salaried employees off the payroll. After all, when enrollment drops, a school system needs fewer employees—and has less money to pay the higher salaries of the employees with the most seniority. Many school systems are offering a lot—bonuses, annuities, part-time jobs, and other benefits—to tempt older employees to leave gracefully (and soon).

To find out if trial retirement would fit that strategy, the JOURNAL spoke to a number of school leaders:

• "I think it's an interesting idea," says Eugene Tucker, superintendent of the Santa Monica/Malibu (California) schools (K-12; enr.: 9,300), where declining enrollment has led to an array of early retirement options. Tucker agrees that some employees stay on the job because they're afraid they won't know what to do with themselves when they retire. "For a lot of people [who are considering retirement], there's a certain void in their lives, so they go on teaching. That's the sad part."

• Fay Dear, business manager and clerk for the Dawson County High School District in Glendive, Mont. (9-12; enr.: 600), says that in a small community such as hers, the replacement teachers and administrators needed for a trial retirement program just don't exist. In the past few years, the Dawson County schools have had an "extreme decrease" in enrollment, Dear says, but when the teacher association proposed an early retirement plan this year, the board looked at it seriously and voted it down. In her opinion, she says, a trial retirement plan would "go down the tubes."

• Guy Di Biasio, superintendent of the Waterbury (Connecticut) schools (K-12; enr.: 13,000), says he does not favor trial retirement as an incentive because employees can use unpaid leaves of absences or sabbatical leave to explore retirement options—and at less cost to the school system. "I think such a plan would foster a problem where people will retire on the job," he says. "People are thinking about retirement, and two years before trial retirement they'll be in semiretirement, and then they'll come back and be in semiretirement for a few more years. Individuals who are professional know when to retire."

• Mario Mancieri, superintendent of the Portsmouth (Rhode Island) schools (K-12 enr.: 27,000), says he finds trial retirement "an interesting concept" but cautions that an incentive can be too tempting: "Our problem is that many times if you make that offer, generally speaking, you might make a benefit for some people you are hoping would not leave."

In designing any early retirement plan, including trial retirement, school systems should consult with their attorneys about the implications of a recent ruling of the Seventh U.S. Circuit Court of Appeals. In *Karlen v. the Chicago City Colleges*, the court threw out an Illinois state law allowing early retirement plans in which the benefits decline as the employee gets older on the ground that such plans violate the federal Age Discrimination Act.

Bruce Mackie, a Chicago attorney who has reviewed many school systems' early retirement plans, says, "It's difficult to tell anybody what to do, because so many retirement plans dovetail into state law. Many states have statutes which are questionable; many work the same way [as the Illinois statute]. A lot of school districts want to know their own liability. The problem is that there are significant risks in liability."

According to Mackie, the federal law does allow diminishing benefits in early retirement to be based on seniority rather than age. But, he adds, seniority is a less effective way to encourage early retirement, because many of the highest paid employees—such as top-level school administrators—often have low seniority.—*Andrew Trotter*

The Small School Forum, Spring 1985, Vol. 6, No. 3. American Association of School Administrators.

CANDID COMMENTS

SELF-INSURANCE: STABILIZING INSURANCE COSTS

Donald Coleman, Chairman
Dept. of Educ. Admin.
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Schuyler County R-1 Schools
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School districts across the nation are facing rapidly escalating costs of medical insurance programs for employees. Faced with rising premiums, superintendents in several small districts in northeast Missouri carefully studied the ratio of premiums paid to carriers with claims paid to employees and decided that premium increases from 25 to 60 percent were simply unjustified. As a result, nine districts with approximately 750 employees banded together to form a self-insurance cooperative which has netted substantial savings to both the districts and employees during its first year while maintaining more desirable coverage. With the cash reserve position from the program continuously building, the prospect for the future appears very bright for the cooperative and offers districts a unique alternative to existing insurance options. This article reviews the benefits of the self-insurance program and seeks to explain the mechanics of the operation.

Level of Benefits

Because three separate carriers with multiple options handled the insurance programs for the schools, agreement on the type of coverage to eventually be offered posed a formidable problem. However, this was resolved by each distict simply maintaining its own unique program to which employees had already agreed.

Premiums

Since each district's unique premium for 1982-83 was used as the base in calculating the premium to claim ratio, the same rates were used as the basis for calculating future premiums.

In order to calculate premiums, several factors were considered. First, a primary loss fund was established to meet predictable claims and a secondary loss fund was established to meet unpredictable claims. Second, co-insurance agencies were contacted to serve as reinsurers of catastrophic losses in the secondary loss fund in order to assure adequate protection and solvency. Third, set-up and administrative costs were estimated.

Based on the resulting calculations, a 6.8 percent premium increase was added to each of the premiums; the districts began their 1983-84 premium contributions on the revised basis. Note, however, that the 6.8 percent figure was well below the increased being imposed by the carriers and the coverage remained the same rather than being reduced.

Financial Integrity

The cooperative is governed by an executive council comprised of all district superintendents. An advisory council comprised of one teacher from each district

also serves. Both of these groups serve without pay. The group has retained a consultant and a claims processing staff. Funds are retained in local banks on the basis of bids, and interest on the deposits pay a major share of administrative costs.

Results

In the first nine months of operation, the cooperative has achieved a balance of $90,000 over and above the claims made on it. Several claims, including open-heart surgery for one superintendent, have been extraordinarily high, yet the fund is growing.

While it is still too early to make long-range predictions or plans, some discussion on implementing self-insurance coverage in other areas such as dental insurance has taken place. Expectations of organizers are currently being exceeded. Other districts in a contiguous geographical region may want to try a similar program.

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Cut class size in half—without hiring more teachers

BY R. LYNN CANADY
AND A. ELAINE FOGLIANI

WHEN ELEMENTARY PRINCIPALS discuss class size, they tend to talk in terms of trimming existing classes by a few students. They know class size must be cut more drastically than that for any real benefit, but they dismiss the idea of classes of fewer than 20 or 22 students as financially impossible. What if we could describe an economical way to reschedule the school day to allow teachers to work with only 12 or 13 students at a time?

We thought you'd be interested.

For 25 years, we've helped elementary schools decrease student-teacher ratios for at least part of the day through the use of a technique we call parallel block scheduling. In its simplest form, it works like this: During critical reading and mathematics instruction, normal-sized classes are split in two—half or so of the class stays with the teacher, and half leaves for such programs as Chapter 1, speech therapy, music, or computer lab. Later, the two groups switch places.

What makes this scheduling technique worth your notice is that it doesn't require additional staff or funding. Instead, you simply make better use of your existing resources.

For too long, educators have stuck to the traditional way of scheduling the day—expecting teachers to teach the entire class as a whole except when certain students are pulled out for other activities. But over the years, new programs such as Chapter 1, speech therapy, or computer instruction were slapped into place wherever they could be squeezed in—a sloppy system that pulled some students out of class at the wrong time and left some teachers waiting for them to return.

Although parallel block scheduling does require students to work with other teachers during the day, it doesn't seek to remold the elementary schools in the fashion of high schools. Young students still are taught most of the day by the same teacher. The key is dividing students into two groups for alternate instruction in reading and mathematics. Thus, a child who is in Reading Group 1 might be in Math Group 2, and vice versa. After small-group instruction, the class recombines for additional lessons in spelling, penmanship, social studies, health, and science—in a traditional elementary classroom setting.

You can decrease student-teacher ratios for at least part of the day with parallel block scheduling, which splits normal-sized classes in two during critical reading and mathematics instruction

How does parallel block scheduling work on a typical day? A sample schedule for one teacher and one student is shown on page 23. Take a look, and you'll see the schedule is simple and straightforward. And in our experience, it has some important benefits:

☐ *An environment more conducive to learning.* Working with fewer students at a time allows the teacher to focus more attention on each child's needs and on the learning methods most suitable for that child. Slow learners or students with discipline problems receive more of the teacher's time, and those participating in pull-out programs no longer miss important class lessons.

☐ *Less wasted instructional time.* In a traditional classroom setting, the only way a teacher can work with a small group of students is to give the rest of the class seat work—more often than not mere "busy work" designed to occupy the students' time. This is seldom the best use of a child's time at school. Under parallel block scheduling, students participate in other important school activities under the supervision of other teachers while their classmates are learning reading and mathematics.

☐ *Fewer discipline problems.* Youngsters often grow restless with seat work. And when the teacher is devoting attention to a small group of students, the situation is ripe for discipline problems to

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arise in the rest of the class. In a traditional setting, the teacher must interrupt small-group work to maintain discipline, but under parallel block scheduling, the rest of the class is not present to create distractions.

☐ *Protection of student privacy.* No child wants to be treated differently than his classmates, and pulling a few students out of class for remedial instruction subjects them to a perceived stigma. That problem doesn't arise under parallel block scheduling: Half the students leave their classroom at the same time, whether for Chapter 1 or for enrichment activities designed for gifted students.

☐ *Easier teacher workloads.* With this scheduling approach, teachers no longer have to prepare work for students who miss lessons because of pull-out programs. What's more, they are relieved of policing students who are doing seat work—and they don't have to spend valuable planning time devising seat work assignments. Instead, the planning time that is part of the parallel block schedule can be spent preparing interactive lessons for use with small groups of students.

☐ *Wiser use of time.* Principals can use the schedule to ensure that all staff members make good use of their day. In many schools, a teacher has idle time while the class attends a music class or computer instruction. Under parallel block scheduling, the teacher is teaching. Also, because other teachers are following the same schedule, enrichment and pull-out programs stay busy as well—because half of one teacher's class will join with half of another's to participate in a program together.

Of course, initiating parallel block scheduling into elementary schools isn't quite as easy as it might appear. You'll find you still won't have enough hours in the school day for all that must be done. And staff members working in pull-out or enrichment programs might not appreciate having their schedules adapted to fit the needs of the classroom teachers.

But considering the educational benefits this schedule offers without the need for additional funds or faculty, we believe you'll find the idea worthy of attention. After all, it would be remiss to ignore any approach that has the potential for improving instruction. And a smaller class size—even if it's maintained only for a few hours each day—certainly has that potential. ■

How do you rate this article? Please turn to the reply card facing page 26 and circle 193 if you think it's excellent, 194 if you think it's good, and 195 if you think it's poor. Thanks.

Who does what, and when

HOW EXACTLY DO teacher Jane Smith and student John Jones spend their school day under parallel block scheduling? In the following example, Smith still teaches reading, mathematics, social studies, and science just as she would under her old schedule. And John still receives instruction in these areas and attends the pull-out programs applicable to him. The difference: John is assigned to Smith's first reading group and her second math group. Here's how their day would go:

Time	Schedule for Teacher Smith	Schedule for Student John
9:00-9:50	Instructs 12 students in Reading Group 1	Receives instruction in Reading Group 1
9:50-10:40	Instructs 12 students in Reading Group 2	Attends computer lab, extension center for reinforcement in basic skills, or pull-out program (Chapter 1, speech therapy, or gifted class as applicable)
10:40-11:00	Recess/snack time	Recess/snack time
11:00-11:50	Instructs both reading groups in story time, penmanship, and spelling	Returns to homeroom for additional reading and language arts attended by both groups
11:50-12:40	Instructs both reading groups in science and social studies	Participates in science and social studies with both reading groups
12:40-1:10	Lunch	Lunch
1:10-1:40	Instructs 12 students in Math Group 1	Attends pull-out program, math extension center for reinforcement in basic skills, or computer lab as applicable
1:40-2:15	Instructs 12 students in Math Group 2	Receives instruction in Math Group 2
2:15-2:50	Planning time	Attends physical education, music, or library on alternate days
2:50-3:00	Dismissal, homework assignments	Returns to homeroom for dismissal

GLEN E. ROBINSON

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Synthesis of Research on the Effects of Class Size

The research evidence provides little support that decreasing class size will by itself improve student learning—the most promising effects of class size reductions occur in grades K-3.

Reducing class size is often proposed as an educational intervention holding much promise for improving educational outcomes. But does research support the expectation that smaller classes will improve learning? My purpose here is to glean from accumulated class size studies those findings that are relatively consistent and meaningful, in order to provide information for making class size decisions.

Reviews of Class Size Research

Four approaches have been used to examine and interpret the research on class size.

Descriptive analysis. For several decades, class size studies were summarized and tallied according to their results. Early analyses, such as Ross and McKenna (1955) and NEA (1968), generally favored smaller class sizes. In 1978, a descriptive analysis by the Educational Research Service concluded that class size had little impact on the academic achievement of most pupils, in most subjects, above the primary grades. The analysis found some evidence of a positive relationship between smaller classes and increased academic achievement of some pupils in the primary grades.

Meta-analysis. In the late 1970s, "meta-analysis" was introduced to provide statistical, rather than descriptive, reviews of research studies (Glass 1976). A metric called "effect size" was calculated for each comparison between treatment and control groups to measure both direction and extent of the effect of treatment variables (such as class size) on outcome variables (such as pupil achievement).

The available few studies in grades 9–12 have not found that smaller classes have positive effects on achievement; moreover, the studies are seriously limited in quality.

In 1978, Cone reported a meta-analysis of 25 studies that included 124 effect sizes. Finding an overall effect size of smaller classes on pupil achievement of only +.14, Cone concluded that student achievement was not significantly higher in smaller classes. Also in 1978, Glass and Smith examined 76 class size studies and selected 14 "well-controlled" studies with 110 comparisons for their meta-analysis. They found only a 6 percentile rank difference in the mean scores of pupils taught in classes of 20 versus those taught in classes of 40; nevertheless, the authors concluded that "major benefits from reduced class size are obtained as class size is reduced below 20 pupils" (p. v).

Later, in a second meta-analysis based on 60 studies containing 371 comparisons, Smith and Glass (1979) examined "nonacademic" effects of class size, such as student behavior and teacher morale. They reported that smaller classes had a substantial positive effect on teacher morale and attitude but much less effect

on pupil behavior and attitude, instructional environment, and instructional processes.

Best-evidence synthesis. In 1986 Slavin combined elements of meta-analysis with descriptive analysis to form "best-evidence synthesis." Applying this method to class size research in 1989, he found only 8 studies that met all his criteria. The median effect size across the 8 studies was only + 13; thus Slavin concluded: "Substantial reductions in class size (from about 27 to 16, a 40 percent reduction) do generally have a positive effect on student achievement, but the effects tend to be small" (p. 251).

Related cluster analysis. The fourth method, the "clustering" approach to research analysis was first described by Light and Smith (1971) and then by Pillmer and Light (1980).

In 1986 Wittebols and I applied the cluster analysis approach to all class size research studies conducted between 1950 and 1985 in K-12 classes containing five or more pupils.[1] We grouped the 100 studies that met these criteria into "clusters" considered important for class size decisions, such as grade levels, subject areas, student characteristics, student achievement, student behavior, and teaching practices. The results of our analysis constitute the basic content of the following summary.

Class Size and Student Achievement

Of the 100 studies in our related cluster analysis, 55 dealt specifically with class size and student achievement in grades K-12. The following cluster summaries are based on the findings of those studies. Additional studies reported since publication of the cluster analysis will be described within each section.

Grades K-3 and subject. The most promising effects of small classes on pupil learning are in grades K-3. Of 22 studies concerned with these effects (see fig. 1), 11 found pupil achievement higher in the smaller classes. Two studies found differences in favor of larger classes, and 9 found no significant differences between larger and smaller classes. (In these studies, definitions of "small" classes ranged from a low of 13 pupils to a high of 29. Definitions of "large" classes ranged from 22 to 40 pupils.)

In terms of subject areas, all 22 studies dealt with reading; 11 of them found achievement higher in smaller classes. Of the 14 studies that involved achievement in mathematics, 5 of these found achievement higher in smaller classes (Note: Johnson and others [1977] found "neither" small nor large classes improved achievement in mathematics). Of the 4 studies that involved language arts, 1 found achievement greater in smaller classes; the other 3 found no significant differences.

Tennessee's Project STAR, currently in progress, is a four-year study involving some 6,900 pupils in about 350 classes from kindergarten through grade 3. The latest data available indicate that class size reductions from about 24 to about 15 pupils in each of grades K-2 had positive effects as measured by scores on nationally standardized tests. For reading, effect sizes were + .18 for kindergarten, + .24 for 1st grade, and + .23 for 2nd grade. For mathematics, effect sizes were + .15 for kindergarten, + .27 for 1st grade, and + .28 for 2nd grade (Achilles, Bain, and Finn 1990, p. 22).

The earlier findings of the pilot study for Project STAR (Whittington and others 1985) indicated that the positive small-class gains in reading and mathematics at the end of 1st grade had evened out by the end of 2nd and 3rd grade. However, Bain and others (1988) found that the smaller classes were associated with student mastery of the district's basic skills objectives for all three years.

Two recent studies also indicate that the initial effects of class size reductions may not be sustained in subsequent years. Follow-up data to the Doss and Holley (1982) study indicated that the first year's positive effects had largely disappeared by the second and later years of the study (Christner 1987). Second, data from a cohort study in one school district of the Indiana PRIME TIME program, which reduced class size in grades K-3 from a range of 20 to 24 pupils to a range of 17 to 20 pupils, found that the gains in reading and mathematics achievement observed in grade 1 had largely disappeared by the end of grade 3 (Tillitski and others 1988). In their "Final Report" summarizing statewide data, Farr and others (1987) found "small but positive" results in PRIME TIME classes but concluded

Highlights of Research on the Effects of Class Size

The accumulated body of class size research supports the following conclusions:

- The most positive effects of small classes on pupil learning occur in grades K-3 in reading and mathematics, particularly in classes of 22 or fewer students. However, the first year's positive effects may not be sustained in subsequent years.
- Studies examining student attitudes and behavior found the most favorable effects of smaller classes in the primary grades.
- Smaller classes can positively affect the academic achievement of economically disadvantaged and ethnic minority students.
- Within the midrange of 23 to 30 pupils, class size has little impact on the academic achievement of most pupils in most subjects above the primary grades.
- The positive effects of class size on student achievement decrease as grade levels increase; however, the available studies in specific subject areas in the upper grades are limited in both number and quality.
- Little if any increase in pupil achievement can be expected from reducing class size if teachers continue to use the same instructional methods and procedures in the smaller classes that they used in the larger classes.
- Reductions in class size have small positive effects on achievement in comparison to many less costly learning interventions and strategies.

—Glen E. Robinson

that "extending PRIME TIME to 3rd grade classes did not have any significant effect for either reading or mathematics on competency test scores" (p.46).

There is some evidence that smaller classes can have positive effects on the achievement of disadvantaged and minority students.

Fig. 1. Studies of Class Size and Student Achievement Clustered by Grade Levels with Subject Areas Indicated[1]

Grade Level	Number of Studies	Studies Showing Greater Achievement in:[2]		
		Small Classes	Neither	Large Classes
K–3	22 (50% favoring small)	Frymier 1964 (R)[3] Castiglione and Wilsberg 1968 (R) Balow 1969 (R) Heim and Perl 1974 (R, M) Johnson and others 1977 (R, M) Wagner 1981 (R) Carrington and others 1981 (R) Doss and Holley 1982 (R, M, L) Cahen and others 1983 (R, M) Indiana State Department of Instruction 1983 (R, M) Whittington and others 1985 (R, M)	Spitzer 1954 (R, M, L, O) Fox 1967 (R, M) Counelis 1970 (R) Katzman 1971 (R, M) Taylor and Fleming 1972 (R, M) Murnane 1975 (R, M) Madison Metropolitan School District 1976 (R) McDermott 1977 (R, M, L) Johnson and Garcia-Quintana 1978 (R, M, L)	Little and others 1971 (R) Mazareas 1981 (R, M)
4–8	21 (38% favoring small)	Furno and Collins 1967 (R, M) Woodson 1968 (R, M) Balow 1969 (R) Moody and others 1973 (M) Heim and Perl 1974 (R, M) Manos 1975 (G) Summers and Wolfe 1975 (G) Doss and Holley 1982 (R, M, L)	Spitzer 1954 (R, M, L, O) Lansing 1956 (O) Marklund 1963 (R, M, L, S) Fox 1967 (R, M) Johnson and Scriven 1967 (M, E) Katzman 1971 (R, M) Taylor and Fleming 1972 (R, M) Coldiron and Skiffington 1975 (G) Wright and others 1977 (R, M, L, O) Mueller 1985 (R, M, L, O)	Mennitt 1964 (R, M) Flinker 1972 (M, L) Kean and others 1979 (R)
9–12	22 (18% favoring small)	Anderson 1950 (N) Mollenkopf and Melville 1956 (O) Bowles 1969 (R, M, O) Smith 1974 (E)	Miglionica 1958 (M, E, S, N) Johnson and Lobb 1961 (M, E, S, N) Williams 1962 (E, N) Engstrom 1963 (M) Anderson and others 1963 (M) Haskell 1964 (O) Meiller 1965 (N) Jeffs and Cram 1968 (O) Grove 1969 (S) Good 1970 (O) Massachusetts Association of School Counselors 1972 (E) Heim and Perl 1974 (R, M) Summers and Wolfe 1975 (E) Coldiron and Skiffington 1975 (G) DeAngelis 1977 (N)	Warburton 1961 (E) Madden 1968 (M) Beditz 1983 (N)

Source: Adapted from Robinson and Wittebols 1986.

[1] Study-effect classifications in this table indicate only the general or overall findings of the study. The effect for one subject area in a study may differ from the effects of other areas comprising the overall classification of the study. Refer to text for specific subject area effects.

[2] Studies listed in more than one cell indicate that the study reported class size comparisons for more than one grade level.

[3] Letters following study citations indicate the subject areas in each study. R: Reading; M: Mathematics; L: Language Arts; E: English; S: Social Science; N: Natural Science; O: Other Subjects; G: General (e.g., basic skill test scores).

Grades 4–8 and subject. In grades 4–8 the cluster of 21 studies indicates that smaller classes have a slight positive effect on pupil achievement, but the evidence is not nearly so strong as in grades K-3. Of these studies, 8 found achievement higher in smaller classes, 3 found differences in favor of larger classes, and 10 found no significant differences between smaller and larger classes (fig. 1). (The definitions of "small" classes ranged from 5 to 36 pupils; "large" classes ranged from 22 to 55 pupils.)

When examined by subject areas, 14 of the 21 studies involved reading; 5 of these found reading achievement higher in smaller classes. Of the 15 studies involving mathematics, 6 found achievement higher in smaller classes (Note: In addition to the 5 studies cited in fig. 1, Mueller's [1985] findings supported smaller classes in mathematics).

Two of the 7 studies involving language arts or English reported greater achievement in smaller classes (Doss and Holley 1982, Mueller 1985). One study found achievement higher in larger classes (Flinker 1972), and 4 found no significant difference. Two general studies found scores on the Iowa Test of Basic Skills higher in smaller classes (Manos 1975, Summers and Wolfe 1975). No significant differences in achievement were found in studies involving other subject areas.

Grades 9–12 and subject. The data in the 9–12 grade cluster do not indicate that smaller classes have positive effects on student achievement. However, these studies are severely limited both in number per subject and in methodology. Only 4 of the 22 studies indicated that student achievement was greater in smaller classes than in larger ones. But "small" classes in these studies ranged from 5 to 40 students, and "large" classes from 26 to 192—nearly half involved large classes of 45 or more students.

Examined by subject areas, none of the 7 studies involving mathematics found achievement greater in the smaller classes. But Bowles (1969) found that "neither" small nor large classes were associated with higher achievement. Of the 7 studies in English, 2 reported greater achievement in smaller classes (Miglionica [1958] also found smaller classes associated with greater achievement in 10th grade English), 3 found no significant differences between larger and smaller classes, and 2 found higher achievement in larger classes. (Williams' [1962] findings favored "large" classes for English.)

Of the 14 study comparisons in other subject areas, 3 found achievement greater in smaller classes. Anderson

Fig. 2. Studies of Student Achievement in Class Sizes of 22 Students or Fewer, Clustered by Grade Levels, with Subject Areas Indicated[1]

Grade Level	Number of Studies	Studies Showing Greater Achievement in:[2]		
		Small Classes	Neither	Large Classes
K–3	13 (69% favoring small)	Castiglione and Wilsberg 1968 (R)[3] Balow 1969 (R) Johnson and others 1977 (R, M) Wagner 1981 (R) Carrington and others 1981 (R) Doss and Holley 1982 (R, M, L) Cahen and others 1983 (R, M) Indiana State Department of Instruction 1983 (R, M) Whittington and others 1985 (R, M)	Fox 1967 (R, M) Katzman 1971 (R, M) Johnson and Garcia-Quintana 1978 (R, M, L) Mazareas 1981 (R, M)	
4–8	10 (50% favoring small)	Woodson 1968 (R, M) Balow 1969 (R) Moody and others 1973 (M) Manos 1975 (G) Doss and Holley 1982 (R, M, L)	Marklund 1963 (R, M, L, S) Fox 1967 (R, M) Katzman 1971 (R, M) Wright and others 1977 (R, M, L, O) Mueller 1985 (R, M, L, O)	
9–12	4 (none favoring small)		Miglionica 1958 (M, E, S, N) Johnson and Lobb 1961 (M, E, S, N) Haskell 1964 (O)	Beditz 1983 (N)

Source: Adapted from Robinson and Wittebols 1986.

[1] Study-effect classifications in this table indicate only the general or overall findings of the study. The effect for one subject area in a study may differ from the effects of other areas comprising the overall classification of the study. Refer to text for specific subject area effects.

[2] Studies listed in more than one cell indicate that the study reported class size comparisons for more than one grade level.

[3] Letters following study citations indicate the subject areas in each study. R: Reading; M: Mathematics; L: Language Arts; E: English; S: Social Science; N: Natural Science; O: Other Subjects; G: General (e.g., basic skill test scores).

Fig. 3. Studies of Class Size and Disadvantaged or Minority Students Clustered by Grade Levels

Grade Level	Number of Studies	Studies Concerned with Achievement in:[1]		
		Small Classes	Neither	Large Classes
K–3	9 (44% favoring small)	Castiglione and Wilsberg 1968 Wagner 1981 Doss and Holley 1982 Cahen and others 1983 Whittington and others 1985	Counelis 1970 Taylor and Fleming 1972 Murnane 1975	Little and others 1971
4–8	5 (80% favoring small)	Furno and Collins 1967 Manos 1975 Summers and Wolfe 1975 Doss and Holley 1982	Taylor and Fleming 1972	
9–12	1 (all favoring small)	Bowles 1969		

Source: Adapted from Robinson and Wittebols 1986.

[1] Studies listed in more than one cell indicate that the study reported class size comparisons for more than one grade level.

(1950), Mollenkopf and Melville (1956), and Bowles (1969). Only 1 study comparison favored larger classes (Bedlitz 1983). The 10 other study comparisons found no significant differences between smaller and larger classes. Recently, a study of the effects of class size reductions in two California secondary schools reported that class size reductions in English, social studies, science, and mathematics did not affect student achievement (Winston 1987).

Classes of 22 pupils or fewer. Of the 55 studies cited in Figure 1, 24 make up the cluster with class sizes of 22 or fewer students. These 24 studies yielded 27 grade-level comparisons, shown in Figure 2. In the K-3 grade cluster, 9 of the 13 studies in reading found achievement greater in the smaller classes. Four of the 9 studies that concerned mathematics found achievement greater in smaller classes. (Note that the findings of Johnson and others [1977] favored "neither" small nor large classes in mathematics).

In the 4–8 grade cluster, 5 of the 10 studies favored achievement in smaller classes. Three of the 8 studies concerned with reading found achievement greater in smaller classes. Likewise, 4 of 8 studies in mathematics found achievement greater in smaller classes. (Note the 3 studies in fig. 2, plus Mueller [1985], whose findings favored smaller classes in mathematics).

In grades 9–12, only 4 studies involved classes of 22 or fewer students. None found student achievement greater in smaller classes.

Many teachers whose classes have been reduced, even by substantial numbers of students, do not change their teaching techniques to take advantage of the smaller classes.

In addition, several recent studies have involved reductions in class size to below 22 pupils. First, as cited earlier, the latest available results from the Tennessee Project STAR study show positive effects of classes below 22 pupils on achievement in reading and mathematics at the end of kindergarten, 1st grade, and 2nd grade (Achilles, Bain, and Finn 1990). Second, a cohort study—in one school district—of Indiana's PRIME TIME program to reduce class sizes below 20 pupils found positive results at the end of 1st grade but not by the end of 3rd grade (Tillitski and others 1988). Third, the statewide third-year analysis by Farr and others (1987) found small but positive results in PRIME TIME classes. Fourth, in a New York City experimental program to reduce the size of 1st grade classes from 26 to 16 pupils, pupils in the smaller classes did not have significantly higher reading scores than pupils in the larger classes (Jarvis and others 1987).

Disadvantaged or minority students. The research rather consistently finds that students who are economically disadvantaged or from some ethnic minorities perform better academically in smaller classes. The 13 studies cited in

Figure 3 that included students from disadvantaged backgrounds or ethnic minorities as a specific factor of the study yielded 15 grade-level comparisons. Ten of the comparisons found the academic achievement of the pupils higher in smaller classes.

Of the 9 studies in grades K-3, 5 found achievement of disadvantaged or minority students higher in smaller classes. In grades 4–8, 4 of the 5 studies found achievement higher in smaller classes. The one study in grades 9–12 found larger classes negatively related to the achievement of 12th grade black students in reading but found no significant correlation with achievement in mathematics (Bowles 1969).

In addition to the studies cited in Figure 3, eight general studies have dealt with class size or pupil-teacher ratio as part of some broader analysis. These studies were included here because a substantial proportion of participating students were economically disadvantaged or from an ethnic minority. Of the 8 studies, 6 found that achievement for disadvantaged or minority students increased slightly as pupil-teacher ratios decreased (Fetters and others 1968, Maveske and others 1969, Walberg and Rasher 1974, Walberg and Rasher 197-, Maryland Department of Education 1978, Edmonds and Fredericksen 1979).

Tennessee's Project STAR is a four-year study involving some 6,900 pupils in about 350 classes from kindergarten through grade 3.

Current data from Project STAR indicate that at the end of 2nd grade minority students in classes of about 15 students did substantially better than minority students in classes of about 25 students. The effect sizes on standardized tests were + 33 in reading and + 35 in mathematics. The data also indicate that 12.7 percent more minority students in the smaller classes than in larger classes passed the reading portion of the Tennessee basic skills test and 9.9 percent more passed the mathematics portion (Achilles, Bain, and Finn 1990).

Academic ability of pupils. Ten of the K-12 studies in the related cluster analysis included both academic ability and grade level of students. The limited data from these studies indicate that students of less ability achieve more in smaller classes, but the evidence is mixed concerning students of average or higher ability. Of the 2 studies in the K-3 cluster, 1 study (Mazareas 1981) found that below-average pupils in non-Title I schools achieved more in reading in smaller classes but that average and above-average pupils achieved more in larger classes. In mathematics, below-average and above-average students in Title I schools did better in larger classes; average ability students did better in smaller classes.

The other study (Whittington and others 1985) found significant improvement in both reading and mathematics when lower achieving 1st grade pupils were taught in classes of 15 pupils compared with classes of 25 pupils.

Of the 2 studies in grades 4–8, 1 study (Summers and Wolfe 1975) found that pupils who scored low on tests of basic skills were negatively affected by classes of 28 to 33 pupils compared with classes of fewer than 28; all groups of pupils in the study were negatively affected in classes of 34 or more. The other study (Menniti 1964) found achievement gains varied among students of differing ability levels.

Of the 6 studies in grades 9–12, 2 indicated that smaller classes can be beneficial to low-achieving students, at least in the areas of English and writing skills (Smith 1974, Summers and Wolfe 1975). The other studies reported varied results among students of differing abilities (Engstrom 1963, Jeffs and Cram 1968, DeAngelis 1977, Beditz 1983).

Current data from Project STAR indicate that at the end of 2nd grade minority students in smaller classes did substantially better than minority students in larger classes.

Class Size and Student Behavior and Attitudes

The 15 studies in our cluster analysis dealing with the relationship between class size and student behavior or attitudes in all grades (K-12) yielded 17 comparisons. Seven of the comparisons found more positive student attitudes and behavior in smaller classes, and 10 found no difference (see fig. 4).

The studies in the grade K-3 cluster show the most favorable relationship between smaller classes and positive student attitudes or behavior, with 4 of the 6 studies favoring smaller classes. In grades 4–8, 1 of the 3 studies identified a positive relationship between smaller classes and student attitudes; 2 studies found no difference. In grades 9–12, 2 of the 8 studies found student attitudes to be more positive in smaller classes, while 6 found no difference.

Fig. 4. Studies of Class Size and Student Behavior and Attitudes Clustered by Grade Levels

Grade Level	Number of Studies	Studies Showing More Favorable Behavior or Attitude in:[1]		
		Small Classes	Neither	Large Classes
K–3	6 (67% favoring small)	Cannon 1966 Johnson 1969 Rogeness 1974 Shapiro 1975	Taylor and Fleming 1972 Buczek 1981	
4–8	3 (33% favoring small)	Rogeness 1974	Taylor and Fleming 1972 Wright and others 1977	
9–12	8 (25% favoring small)	Walberg 1969 Anderson and Walberg 1972	Haskell 1964 Jeffs and Cram 1968 Grove 1969 Hughes 1969 Scott 1972 Ward 1976	

Source: Adapted from Robinson and Wittebols 1986.

[1] Studies listed in more than one cell indicate that the study reported class size comparisons for more than one grade level.

Class Size and Teaching Practices

Of the 22 studies in the teaching practices cluster in grades K-12, 13 studies found more favorable practices in smaller classes than larger classes. Eight of the 9 studies that used the Indicators of Quality or similar observational instruments to assess differences in teaching practices and classroom climate found practices and climate more favorable in smaller classes (Vincent 1968, Coble 1969, Olson 1971, Auerbacher 1973, Newell 1954, Richman 1955, Whitsitt 1955, McKenna 1955). One study (Pugh 1965) found no significant difference. Many of these studies were criticized for their use of observational instruments their critics considered biased in favor of small classes and for including practices that had not been validated as effective in improving student learning (NESDC 1975).

Nine other studies also used direct classroom observation of teaching practices but different types of assessment instruments. Six found no significant differences in teaching practices in smaller and larger classes (Fox 1967, Haberman and Larson 1968, Bernstein 1973, Smith 1975, Yeany 1976, Wright and others 1977). Three found teachers in smaller classes using more desirable practices (Taylor and Fleming 1972, Manos 1975, Cahen and others 1983).

Bourke (1986) found that some teaching practices were different in smaller classes, but he did not find any increase in the individualization of instruction in the smaller classes.

The initial effects of class size reductions may not be sustained in subsequent years.

Many teachers whose classes have been reduced, even by substantial numbers of students, do not change their teaching techniques to take advantage of the smaller classes. For example, in their two-year experimental study in Toronto, Wright and others (1977) reported that a substantial majority of teachers whose classes had been reduced from 37 to 16 pupils said they had given more individualized attention to students and had made changes in classroom management, pupil evaluation, and classroom layout when working with smaller classes. However, these teacher-reported changes in teaching procedures were not found in classroom observations by the researchers.

Jarvis and others (1987) evaluated the recent New York City experimental study that reduced 1st grade classes from 26 to 16 pupils. "Although it was expected that the reduced-class size would permit teachers to provide more small group and individualized instruction in all curriculum areas," they reported, "no meaningful differences in the amounts of small group and individual instruction were observed between program classes and comparison

schools classes." However, several factors had a bearing on the experiment: lack of classrooms, late notification of experimental schools, quick hiring of additional teachers (many inexperienced), and no specific training or help for teachers in using techniques appropriate for small classes.

Class Size and Learning Interventions

Several researchers have examined different learning interventions in terms of their effects on student achievement. For example, in his studies, Bloom (1984) held class size constant and varied instructional methods and other factors in an effort to raise student learning in classes of 30 to match the levels of learning that he and his coworkers achieved with one-to-one tutoring. Through one-to-one tutoring, they raised student learning levels "2 sigmas" (2 standard deviations) above the level of pupils taught by conventional methods in classes of 30 pupils. By using the feedback-corrective techniques of mastery learning in classes of 30 pupils, they raised student achievement "1 sigma" above the level of pupils taught in classes of 30 using conventional teaching methods. Bloom concluded that even in classes of 30 pupils, large numbers of teachers "can use the feedback-corrective procedures [of mastery learning] to get the 1 sigma effect [in student learning]" (p. 6).

A recent study by Pinnell, DeFord, and Lyons reported sustained long-term effects with the one-to-one tutoring techniques of Reading Recovery.

In an examination of nearly 3,000 studies of educational interventions and their relationships to educational productivity, Walberg (1984) found that class size reductions showed the smallest positive effect (effect size, +.09) on student learning of some 35 interventions studied. The instructional methods found to have the largest effects on learning were reinforcement (+1.17), acceleration (+1.00), reading training (+.97), and cues and feedback (+.97). Walberg pointed out that 2 of the 4 highest ranked interventions (reinforcement and cues and feedback) were components of Bloom's mastery learning.

Slavin (1989), in applying the results of his class size best-evidence synthesis to Chapter 1 programs, questioned whether Chapter 1 funds should be used in schoolwide projects to reduce class size and what the optimum class size is for Chapter 1 pull-out programs. He concluded that research would not justify reliance on class size reductions alone as a means of improving the achievement of low achievers. In answering the second question, Slavin stated, "Leaving aside the question of cost-effectiveness, providing low achievers with one-to-one tutors for some portion of their school day is probably the most effective instructional strategy we have" (p. 255). A recent study by Pinnell, DeFord, and Lyons (1988) reported sustained long-term effects with the one-to-one tutoring techniques of Reading Recovery. This early intervention program, directed at the 20 percent of 1st graders having the most difficulty learning to read, requires specially trained teachers to tutor pupils individually for 30 minutes every day. In an average of 14 weeks, according to a longitudinal study conducted in the Columbus, Ohio, schools, three-fourths of the bottom group of students were brought up to the average reading level of their classes. Most important, the reading gains were sustained through the 3rd grade *without* further intervention.

Class Size and Cost-Effectiveness

Some researchers have attempted to measure the relative cost-effectiveness of improving student learning by a school district spending additional amounts of money to upgrade specific learning interventions. Reporting data on 6 output measures of pupil performance in Boston elementary schools, Katzman (1971) found that differences in school pupil-teacher ratios of 14 to 1 and 31 to 1 did not significantly affect pupil achievement in reading and mathematics. He concluded that expenditures per student are weakly related to student performance "because many expensive resources, like small classes or new buildings, have little impact on learning" (p. 171).

Later, Heim and Perl (1974), using data from 63 school districts in New York, compared gains in student achievement when per-pupil expenditures were increased in $100 increments for each of 4 types of improvements: (1) reducing the pupil-teacher ratio, (2) increasing teacher degree status, (3) increasing teacher experience, and (4) increasing principal degree status. Of the 3 teacher-related improvements, only reduction in class size was found to have a systematic impact on student achievement at the K-2 grade level. In grades 3–5, all 4 factors appeared to yield improvements in reading achievement but varied in cost-effectiveness. The most cost-effective improvement was found to be upgrad-

ing the degree status of principals (14 percentile point gain), followed by upgrading teacher degree status (9 percentile points), lowering pupil-teacher ratio (1 percentile point), and increasing teacher experience (0.7 percentile). In arithmetic achievement, only the principal and teacher degree status inputs appeared to yield any real improvement.

Using a computer model, Levin, Glass, and Meister (1984) tested the relative cost-effectiveness of adding $100 per student for each of four interventions: (1) lowering class size (35 to 30, 30 to 25, 25 to 20, and 35 to 20); (2) tutoring (peer, adult, and combinations of both); (3) computer-assisted instruction (10-minute daily session); (4) increased instructional time (30 minutes a day per subject). They found peer tutoring, in which upper elementary students tutored pupils in lower grades, to be the most cost-effective of the four interventions. Peer tutoring was about 4 times as effective in improving pupil achievement in mathematics (effect size, +.46) as reducing class size from 35 to 20 pupils (+.11). Computer-assisted instruction (+.10) showed about the same effectiveness as reducing class size in improving mathematics achievement, while increasing instructional time by 30 minutes a day had the smallest effect (+.05) per unit of cost. In improving reading achievement, the effectiveness of peer tutoring (+.22) was followed closely by computer-assisted instruction (+.19) and by increasing instructional time (+.12), with class size reduction (+.06) the least effective.

Recently, Stern (1987) examined achievement data of pupils in grades 3 and 6 in California schools related to teacher salary data and controlled for socioeconomic characteristics. He found achievement to be positively and significantly associated with teacher salary levels but not positively associated with teacher-pupil ratio. The author concluded that raising teachers' salaries would be more cost-effective in improving student achievement than reducing class size in grades 3 and 6.

Reductions in class size have small positive effects in comparison to many less costly interventions.

Making Decisions about Class Size

Although class size reductions are often proposed as a way to improve student learning, research does not support the expectation that smaller classes will of themselves result in greater academic gains for students. The effects of class size on student learning varies by grade level, pupil characteristics, subject areas, teaching methods, and other learning interventions. To enhance the possibility of increasing student learning by reducing class size, research indicates that class size reductions should be targeted to specific groups of pupils for specific purposes and that teachers should receive the training and resources they need to make the most of the learning opportunities in smaller classes.

Certainly, class sizes should be within reasonable ranges in which the most effective teaching and learning can occur. But in terms of increased pupil learning, research evidence does not justify an absolute limitation on class size or small overall reductions in class size or pupil-teacher ratios as a matter of general policy in isolation of the many other factors involved. □

[1]Glen E. Robinson and James H. Wittebols, *Class Size Research: A Related Cluster Analysis for Decision Making*. Arlington, VA: Educational Research Service, 1986. 222 pp.

[2]Note: The studies in Figure 1 are grouped according to their *general* or *overall* findings regarding class size effects. In cases where multiple-subject-studies reported findings in a subject area that differed from the general classification of the study, the exceptions are noted in the text.

Editor's Note: Space limitations prevent inclusion of the lengthy list of references accompanying this article. The basic references are available in Robinson, G.E. and J.H. Wittebols, *Class Size Research: A Related Cluster Analysis for Decision Making*. Arlington, VA: Educational Research Service, 1986. 222 pp. A list of the full citations of all references in the article is available upon request from the author at the address below.

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Technology: Cost and effect

Investing in school technology? Weigh today's expense against tomorrow's gain

By Michael J. Feuer

DECIDING WHAT TECHNOLOGY your school board should invest in is a bigger problem than you might imagine. Let me use an analogy to show you what I mean:

Suppose you're a sales representative who must visit customers in 20 different cities, and you want to plan your trip so you'll travel the fewest possible miles. All you need to do is list the different possible routes, calculate their mileage, then scan your list for the shortest one. Sounds logical and easy—until you start doing it. The number of possible routes is so large (roughly 24 with seventeen zeros) that by the time you finished listing them, you'd have aged considerably, your road maps would be obsolete, and your car would be a rusted-out relic. Meanwhile, your competitors, unencumbered by your penchant for analytical rigor, would follow their good old seat-of-the-pants instincts, get out on the road, steal all your business, and ignore your mathematical subtleties of optimization all the way to the bank.

Decision making in education has all the trappings of this traveling salesman problem: The number of possible interactions among teacher, school system, parents, and children seems virtually endless, and the effect of any given intervention can be predicted with only limited accuracy. Worse yet, it's difficult to abbreviate the multiple goals and objectives of schooling into something that's easily measured—like miles traveled, in our example.

But because education is a public enterprise operating under tight fiscal constraints, school board members understandably want to allocate resources in a way that achieves their objectives as efficiently as possible. Choosing from an ever growing array of hardware and software configurations—all of which promise dramatic classroom results—is no exception. And boards facing these tough choices might feel trapped between two equally unattractive strategies: Hold off buying computer technology until you've identified the "optimal" hardware and software, or buy now at the risk of investing public money for no measurable return.

The learn-as-you-go-strategy

In fact, schools have opted for the second choice. In what might be termed a cautious natural experiment, more than 95 percent of all public schools have acquired at least one microcomputer for instruction. In less than ten years, computer-based technologies have been introduced to students who have quite different intellectual and behavioral needs, by teachers and administrators of varying backgrounds and technical skills, in communities of diverse demographic, racial, ethnic, and economic compositions.

Some might argue that, with more extensive planning and analysis, these new learning tools could have been introduced more effectively. On the whole, though, schools have opted for a learn-as-you-go strategy. One of the outcomes has been a rich set of data—including reports from a wide range of experiences, along with research and evaluation conducted by a small community of dedicated scholars. Together, this information makes it possible to approach technology decisions with a healthy blend of informed instinct and analytical deliberation.

Consider, for example, two key questions often faced by school boards: How much do new instructional technologies cost? And are they worth the money?

These are not academic questions; they have important practical consequences. "Buy more hardware" sounds appealing, especially to advocates of computer-based instruction—until someone points out that the equipment comes at the expense of other materials or programs.

As the congressional Office of Technology Assessment (O.T.A.) indicated in our comprehensive study *Power On! New Tools for Teaching and Learning,** the current national average is 1 computer for every 30 public school children. The study also found that computer-using students now average less than two hours per week on the machines.

The current 1 to 30 ratio represents a trivial fraction of total annual education expenditures. But talk about substantially improving that ratio—and the amount of time children actually spend working with computers—and you're talking about a commitment equal to nearly a third of what we now spend on nonpersonnel instructional resources every year. If you wanted to provide one microcomputer for

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**Power On! New Tools for Teaching and Learning* is available for $11 from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402-9325. To order by telephone, call 202 783-3238. When ordering, specify G.P.O. stock number 052-003-01125-5.

every three students, for example, the annual costs (including software, upgrades, training, and maintenance) would exceed $4 billion, or approximately 32 percent of the $13 billion we currently spend for instructional materials.

Whether this is a lot or a little depends, of course, on your point of reference. Four billion dollars is a small fraction of the amount Americans spend each year on fast food, for example, and an infinitesimal fraction of the gross national product. On the other hand, with four billion dollars, you could pay the annual tuition and room and board for 400,000 college students or the annual medical expenses for 250,000 elderly Americans. Without reference to the *effects* of these expenditures, in other words, the dollar amount we spend on computer tools is almost meaningless.

Inevitably, the cost question compels a series of even more difficult questions: Will the new learning tools be more effective than books? Could reductions in class size bring about similar achievement gains at lower cost? What type of computer-assisted instructional tool is most appropriate to a given school system's needs?

Analyzing cost-effectiveness

Obviously, the cost question cannot be divorced from the effects question. Few studies of school technology have put the two together, as O.T.A. found. Luckily, some have, and their results demonstrate that analyzing cost-effectiveness can shed light on the relative strengths and weaknesses of computer-assisted instruction versus other strategies and also can inform decisions about which type of computer-assisted instruction (C.A.I.) your schools should adopt.

The basic rationale for using cost-effectiveness analysis, as Stanford professor and school board member Henry Levin explains in *Cost Effectiveness: A Primer*, is that it allows decision makers to select those activities that give the best results for a certain level of expenditure or that give a certain level of results for a minimum cost. Cost-effectiveness analysis assumes that programs with similar or identical goals can be compared and that a common measure of effectiveness can be used to assess them.

The technique, according to Levin, involves estimating all the relevant costs—including personnel, facilities, equipment, and materials—and specifying program objectives with appropriate measures of accomplishment. Once you have data on cost and effects, you can—like the salesman figuring the mileage of his trip—compute the per-dollar effects of various instructional strategies, then select the one that promises the lowest cost-to-effect ratio.

One recent study, for example, compared the cost-effectiveness of four different instructional strategies: reducing class size, lengthening the school day, introducing C.A.I., and instituting cross-age tutoring. The results show that C.A.I. was cost-effective at the elementary level compared to increasing instructional time, but reducing class size appeared to be slightly more cost-effective than C.A.I. in mathematics. Peer tutoring was the most effective of the four interventions in both mathematics and reading. In other words, peer tutoring was associated with higher gains in reading and mathematics scores, per $100 of cost per student, than was computer-assisted instruction.

Another recent study used cost-effectiveness analysis to compare alternative approaches to computer-assisted instruction. Levin, who did the study, found that different forms of C.A.I.—including "integrated learning systems," which are self-contained, highly structured, and ostensibly "teacher-proof"—yield quite different results in different places. Both the costs of these technologies and their effects on learning varied widely among the schools he investigated. In addition, the study showed that cost-effectiveness depends in part on how much the computer-based instructional system is used. (Often the technologies are used below full capacity, partly because educators might believe C.A.I. is effective only for some students.) Cost-effectiveness rises when computers are used fully, even though a day-long program can entail added personnel costs.

Other researchers have applied cost-effectiveness to using computers in industrial and military training. Of course, training and education are fundamentally different: Training usually involves teaching more specific skills to older learners than education does. Also, in the military and in many industries, the main efficiency problem is how to train people as quickly as possible—not a central concern of schools. Still, studies of training can give educators some insights.

The Institute for Defense Analyses has reached the preliminary conclusion that computer-assisted training costs approximately one-third less per unit of effectiveness than does conventional instruction. This conclusion does not necessarily apply to schools, but it demonstrates the value of explicitly accounting for the costs and effects of various modes of instruction.

A few notable studies have experimented with cost data and models of cost-effectiveness in public schools. One such study, conducted at the Westberry Elementary School in Saskatchewan, Canada, involved students in grades 3 and 5 who were assigned randomly to a study group and a control group and were tested before and after the teaching period to measure mathematics achievement and attitude and computer literacy.

The study found that students who were exposed to computer-assisted instruction in mathematics improved significantly more in mathematics than did students taught by traditional methods. Not surprisingly, they pulled ahead of their peers in computer literacy, too. Students' attitudes toward mathematics were not significantly affected by computer-assisted instruction—but C.A.I. won the prize for cost-effectiveness in producing mathematics achievement.

A cautionary note

As these studies suggest, the advent of computer technology and of sophisticated analytical methods is making it possible for school board members and administrators to approach complex choices about technology in a systematic and quantitive way. But a word of caution is in order: Cost-effectiveness is not the sole criterion on which to base technology decisions. Nor does it respond perfectly to the limited questions it is designed to address.

One glaring deficiency of cost-effectiveness analysis is that the conventional approach does not account explicitly for multiple objectives, says David Stern, education professor at the University of California at Berkeley, who contributed to the O.T.A. study. For example, if computer-assisted instruction produces gains in one area, other areas of learning might suffer simply because the amount of time in the instructional day is limited. Time spent on the computer mastering certain mathematics skills could mean less time for other subjects.

Stern argues that, ideally, cost-effectiveness analysis should yield information about the *net* overall gains in learning, taking into account *all* alternative teaching strategies. (Even more advanced analytical techniques eventually might be able to handle such complexity.)

A second drawback to keep in mind when applying cost-effectiveness analysis is its inherent bias toward short-term results. This problem is pronounced with

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Get the whole story before you plug into a computer network

BY DAVID VERNOT

HOW THINGS have changed. In 1984, I taught word processing in a middle school computer lab. At the beginning of class, students passed around the word-processor disk, loading the program into individual computers (a practice I subsequently learned is illegal). Then they retrieved projects from their file disks (except for those who left their file disks in their lockers). Eventually, all the students were working on their projects.

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And ten minutes before the end of the period, students began saving their projects and lining up, file disks in hand, by the lone computer-with-printer to print out copies. Inevitably, some students still were in line when the bell rang.

Today, many students in computer science classes arrive with no disks in hand. They turn on their computers, give their names and passwords, then select the word processor (stored on a centralized hard disk and purchased with a network license) from a menu, and load their files from the same hard disk. Within two minutes, they're hard at work. When they're ready to print, they send their files to a central, high-speed printer where the files (rather than the students) line up and wait their turn. And while the files are waiting to print, the students begin work on another project.

Oh brave, new world that has such networks in it.

Or is it? As the networking juggernaut gathers speed (you've seen the hype in computer magazines), the time has come to take a close look at this newcomer to the world of school computing.

What is networking?

Networking basically means setting up multiple computers so they can share "stuff" electronically. The stuff can be software, information, files, printers, a hard disk drive, or any number of other peripherals.

With networking, for example, students in a computer lab can use a single

software package stored on a centralized hard disk, or members of a central office staff can share a printer and send messages to each other electronically.

More specifically, talk of networking today usually refers to what's called a local area network, or LAN. A LAN can include the following components:

- The *hardware* (computers, printers, and so on) to be connected.
- A master computer, called a *file server*, which controls the network operation and stores software and user files.
- *Cables* and *interface cards* (installed in the computers) to connect the hardware.
- *System software*, which controls the operation of the network.
- A *network version* of the program software to be used at each individual computer station.

Not all LANs have all these components. Some don't have a file server; others have system software built in. Some LANs are set up just for printer sharing, with the software stored on floppy or hard disks at each station. But whatever their configuration, networks can perform a myriad of tasks. A few examples will give you an idea:

Mathematics teachers at Lake High School in Stark County, Ohio, use the software stored on a file server to supplement their curriculum. Math department head Jo Schiffbauer says her staff is not networking to save money or teacher time, but to help students better understand mathematics.

In Hamilton, Ohio, Pat Huth tends to a writing center that boasts 30 computers, 14 printers, and a passel of high school students who come to write — English papers, science lab reports, articles for the student newspaper. Even elementary and special education students use the lab. Thanks to the three small networks linking this hardware, students can select an idle printer on their screens (the network tells them which printers are available) and send their writing to be printed. The students keep word-processing software and files on floppy disks.

Although Pat sees no need for a file server to store the word processor and student files, she would like to add one to give students access to a proofreading software package that would help them check punctuation, grammar, and style — and even identify potentially racist and sexist language.

In Dayton, Ohio, LANs go a step further. Elementary school students have access to curriculum software, and thanks to a management software program that automatically records their progress, teachers can instantly keep track of how their students are doing by tapping into the system.

What's in it for you

All this sharing sounds great: Buy one printer, one hard disk drive, one copy of that math game or word processing program instead of 20, and think of the money you'll save.

Networking has other advantages, too. It can reduce — but probably not eliminate — the handling of floppy disks and (if properly managed) increase the amount of time students spend on task. It also allows for easier individualization: Students can select the appropriate program from the network menu.

And as the Dayton case suggests, networking can help teachers do a better job of monitoring student progress and achievement. Many programs keep records of student work and store the information in a teacher-accessible file on the file server's hard disk.

Networking has advantages, but it's fraught with complications, too

But pyrite glitters and is not gold. Networking can be fraught with complications: copyright laws, software incompatibility, hidden expenses. And it's fraught with myths that need to be exploded if you're to make a reasonable decision about whether networking's right for your school system. Maybe you've heard (or even bought into) some of these myths:

- *Myth 1: Networking saves money.* Yes, you can save money on some software. Example: Software for 15 stand-alone computers in your school's computer lab could cost you $60 a pop, or $900 for all 15. A network version of the same program might cost $200 — and you only have to buy one. But the added costs of interface cards, extra memory, cabling, and networking software can approach $1,000 per machine. Factor in an extra computer if you need a file server, and don't forget to add the cost of staff time. Before you know it, that "economical" network system has turned out to be more expensive than stand-alone computers.
- *Myth 2: I can use all my current software on a network.* To run most software on a network, you need a special network version, and such versions just aren't available for many programs. What's more, it's illegal to buy one copy and place it on the network without a license.
- *Myth 3: Software runs faster on a network.* Not so, says Ohio computer consultant Gary Canterbury. "Personal computers have spoiled us with speed. The more computers on a network, the slower the operation," he says. "It might be frustrating to discover that getting access to that word processor on a network is slower than running it from the hard disk of your office P.C."
- *Myth 4: A network-integrated learning system will raise our test scores.* Maybe. Maybe not. Watch out for the trap of buying a computer system geared to the kind of skills measured by standardized tests. Instead, use computers to develop the more important basics of thinking, writing, and group process skills.
- *Myth 5: Networks will reduce our need for teachers.* Teachers are just as necessary in a lab setting. In fact, if you set up a computer network, you'll need a trained and willing teacher with time to learn the network operation, set up the software, and maintain and update files on the hard disk.

Caveat computer emptor

What all this means is that you have to be a knowledgeable consumer if you're in the market for a computer network. Don't be snowed by the sales pitch. The sales rep and company brochure might convince you that networking is the solution to all your problems. But I've yet to see a network that operates like the one in the brochure. Much network software still contains bugs. Talk to teachers who are using the proposed system elsewhere. And give the teachers who will be using it in your schools a say in the decision. Above all, don't buy more network than you need. Analyze your needs before you start shopping, and then keep hold of your purse strings.

Make sure you also buy where you will get "after the sale" support. That's important advice when you're buying stand-alone computers, and it's even more important with networks.

And don't expect any networking system to be self-sustaining. Training is criti-

cal, both for the person who will administer the network and for the staff members who will use it. Make the training ongoing. One-shot training has a way of going in one ear and out the other.

Being a knowledgeable consumer also means getting a fix on where the major computer companies stand today when it comes to networking. Here's a rundown:

☐ *Tandy*, which has been involved in networking for years, continues to upgrade its network capabilities. Its IBM-compatible Tandy 1000 line can be incorporated into a LAN with a Tandy 3000 or 5000 file server and third-party networking hardware and software sold through Tandy.

☐ *IBM* is pushing labs using its K-12 curriculum package. A typical IBM LAN has Model 25s or 30s linked to a Model 50 or 60 file server using an IBM or third-party network.

☐ *Apple* is moving into networking. Until recently, Apple LANs needed a third-party network. Corvus was the major player, with others available. Many publishers were reluctant to develop networkable versions of software. But since Apple's announcement of its own network, Appleshare, publishers seem more willing to develop networkable versions of some Apple software. The Minnesota Educational Computing Consortium (MECC), a major supplier of instructional software for Apple IIs, now is converting much of its software to support the Appleshare network.

How far can all this technology take you? Pretty far. For example, SOITA, a support organization for school systems in southwest Ohio, has impressive plans to network its training center/demonstration site. An IBM lab, with a Novell network, has access to all of IBM's administrative and instructional software. Twenty Apple IIGS computers will be connected, using the Appleshare network, to a MacIntosh II file server, on which MECC, Scholastic, and other instructional software will be stored. A third lab will contain MacIntosh SEs connected to a variety of state-of-the-art peripherals. A second MacIntosh II will operate as both a file server for the MacIntosh network and super-file server, allowing information transfer among all three networks. Hooked into the network will be a modem and satellite dish for long-distance data transmission via phone lines and satellite.

No school system really needs such a system today. And most of these connections are still just a glow in the eye of SOITA's Gary Canterbury. But it can be done—if you want it. You have to decide. And when it comes to networking, educators are going both ways.

I asked Kent Rawlings, computer coordinator in Finneytown, Ohio, why he isn't networking. Kent replied that his immediate need is for more computers in the classrooms. "I don't hear teachers asking for a network, so I'm content to wait for bugs to be worked out and the technology to advance further," he told me. "For now, I'd rather give the teachers floppies than take on the responsibility of administering a network."

On the other hand, Gary Canterbury and others swear by their networks.

You have to be the judge for your own school system. ■

Talking about networks? These are the words to use

THIS BRIEF GLOSSARY of networking terms will help you wade through the jargon (and hold your own with the computer sales representative):

☐ *Backup*. Making a copy of the files on your disk in case the disk is damaged. In a network, it's critical to have and use a procedure for backing up the hard disk on the file server.

☐ *Cabling*. Used to connect nodes in a network. The type of cable used affects the speed of transmission of the data and, consequently, the speed of operation of the network. Coaxial cable transmits faster than telephone wire or the equivalent.

☐ *Dedicated computer*. A computer reserved for a specific function. A file server in a network is a dedicated computer and cannot be used as a station.

☐ *Downtime*. Time when a computer or network is not working. This is more of a problem with networks than with stand-alone computers: When one computer in a lab goes down, you still have 15 others, but when the file server or system software goes down, the whole lab follows.

☐ *File server*. The master computer that controls the network and on which the network files are stored.

☐ *Hard disk*. A high-capacity disk usually sealed inside a computer. (Floppy disks have a smaller capacity and can be removed.) Software and files are stored on a hard disk in the file server.

☐ *Integrated learning system* (I.L.S.). A comprehensive package of educational software, often aimed at basic skills, which includes a detailed management System. An I.L.S. is usually run on a network and is almost always expensive.

☐ *LAN administrator*. The person in your school system who will oversee the local area network (LAN). This person is crucial and will need training and time to do the job properly.

☐ *Networkable program software*. Programs that can be loaded on a file server and used by stations on the network. (Example: a word processing program or problem-solving game.)

☐ *Network software license*. A license sold with some software that allows you to use it on a network.

☐ *Node*. Each point on a network where a piece of hardware (example: a computer or printer) is connected.

☐ *Print buffer or spooler*. A way to store files waiting to be printed (either in a special memory or on a hard disk).

☐ *Printer sharer*. An alternative to a network for printing. Multiple computers can send files to the printer sharer, which lines those files up in memory and sends them to a printer.

☐ *Stand-alone computer*. One that is not connected to a network.

☐ *Station*. A computer or terminal available for use on a network.

☐ *Switch box*. An alternative to a printer sharer, used to connect multiple computers to one printer. The user must wait until the printer is free, turn the switch to his computer, and print.

☐ *System software*. Software that controls the network operation. It is loaded on the file server (if there is one) and sometimes on the individual computer stations.—D.V.

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Greet computer vendors with these pointed questions

BY MARK WHITMAN

AN EXPENSIVE MISTAKE awaits school executives who purchase computers and other technological equipment without tapping into every available source of expertise for advice. And as trends currently are shaping up, the smart move isn't to turn to your in-house computer whiz—but to a vendor interested in serving as your partner.

No, I'm not making a plug for computer vendors. Instead, I'm suggesting you simply take advantage of today's marketplace: For computer manufacturers, the public schools are *the* growth market of the coming years, and once the local schools are using a specific brand of computer, a secondary market for that brand will open up among parents of schoolchildren. That means the pressure to win your business is great, and you can use this situation to the benefit of your schools.

Of course, you can't trust a salesman to put your needs entirely before his own. What I'm suggesting is a different relationship with your vendor. Rather than assuming a traditional adversarial role with salespeople, it's time to form a partnership with you in control and the vendor putting his expertise at your disposal. Because you have the advantage over the vendor, you aren't forced to buy what he has to sell—instead, you can insist he sell you what you need.

But that's only as it should be. Only you have the expertise to know what you need in a computer system that is to serve as an educational or administrative tool. And because the vendor wants your business, you are in a position to take advantage of his technological expertise to help you select the equipment that will do the job.

Ask your vendor

Building a partnership with a computer vendor takes great care on your part. You must choose a vendor who has the resources to meet your needs and a commitment to honor his role in the partnership. Good business sense still prevails, and asking tough questions will be a big help in making the right choice. In the Tippecanoe (Indiana) School Corporation (K-12; enr.: 7,500), we've learned from hard experience that you need to know a lot more than just how much a specific computer system costs. Here are some questions I recommend asking vendors:

The vendor wants your business, so take advantage of his expertise

1. Right now, I don't have the resources to purchase all the technological equipment my schools need, but eventually I'll require a computer system that will handle both administrative and instructional needs. Do you have the software to handle my requirements? What specific hardware would you propose, and in what sequence would you propose it be installed? How do you suggest we begin? Can your company provide my schools with professional planning assistance? At whose cost?

2. Who is going to supervise this technology once it's in place? Will I have to add to my staff? How many new people will I need? What would be their duties?

3. Convince me the technology you're trying to sell me will not be obsolete before the year 2000. What changes does your company anticipate in the next five or ten years? How I will be able to expand on today's purchase to take advantage of tomorrow's innovations?

4. How many terminals can be connected to the same computer system at one time? How many people can use the system at one time without slowing computer response time or otherwise degrading the performance of the system?

5. Who writes your software? How long have the writers been in business? Who else uses your software? Can you give me the names, telephone numbers, and addresses of customers I can contact?

6. Is your software prepackaged? How much will we have to restructure our present methods of operation to conform to your software? How much flexibility is provided within the programming to allow us to customize the software to our specifications? How much do you charge for customizing software? How do we get it done if the need arises?

7. What kind of customer support do you provide? Do you have a customer hot line? Will company representatives come to our schools? How much does this cost?

8. What about new software versions and updates? Will we receive them automatically? Who will install them? Is there a fee?

9. Can your hardware and software make use of optical scanners for inputting data? If so, whom do I contact to get more information about scanners?

10. What sort of warranty do you offer with your hardware? Do you provide on-site maintenance? How quickly? How many service people cover our area? Do you have a single telephone number to call for maintenance? How much do you charge per item for annual maintenance?

11. What sort of interest is your company taking in education? Are you developing special products for the school market? Can you offer evidence of your company's commitment to education?

Mark Whitman is administrative assistant for program development for the Tippecanoe (Indiana) School Corporation.

12. How large a territory do you cover for your company? How long have you been with the company? Will you be available when I have a question or need help with the system? Can you arrange for me to speak with people at the highest level of your firm?

13. We will require considerable training for our staff. How much training can you provide, and what do you charge for it? Who does the training? What are their qualifications? What guarantees can you provide that your training will be effective?

14. What evidence can you provide that your company will consider our relationship a partnership that transcends the normal vendor-customer relationship? What will you do for us besides take our money?

Asking these questions won't guarantee you'll make the right decision in choosing a computer vendor. But getting satisfactory answers will help you assess the vendor's commitment to your success, his ability to provide a good product and continuing support, and the level of corporate involvement you can expect. And you'll know whether you've found a firm that will take your partnership seriously.

Critical criteria

Remember: You're not purchasing technology; you're purchasing educational and administrative tools. The distinction is critical. When a salesperson tries to sell you on greater computer memory or the latest microprocessor, your decision must rely on two simple criteria: the ability of the hardware and software to do the job required of it, and the level of vendor support you can expect after the computer has been installed.

Don't underestimate the importance of these two criteria. A partnership with a computer vendor and his parent company is essential to the success of your newly purchased technology. Too many school executives try to be creative with their technological systems and wind up shooting themselves in the foot—mixing and matching different brands of bargain equipment that aren't compatible and that offer vendors little incentive to provide the training or maintenance support that's possible through a close relationship with one vendor.

So unless you have someone in your schools with substantial technological expertise, you're best advised to select one established vendor who is prepared to put together a packaged system tailored to your needs and to back up this system with training and support. As an important customer, you're buying the vendor and his services as much as you're buying his equipment.

The marketplace is full of vendors who'd love to have your business, so the discriminating school system should have little problem finding one and coming to an arrangement that is both educationally and economically sound. And once you've spent the effort to select your vendor, you'll have the luxury of concerning yourself with instructional decisions regarding the computers you purchase—and leaving the technical concerns to your vendor. ■

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Some schools save money by breathing new life into old buses . . .

By Arthur G. Sharp

NEARLY AS GOOD the second time around: That's the conclusion of school boards that have elected to save money and wring a few more years of service out of their school buses by rebuilding or renovating them rather than buying new ones.

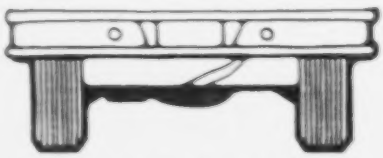
Several school systems in Colorado and western Kansas are having their buses rebuilt commercially one or two at a time. One large Colorado school system currently is having 30 buses refurbished. And in Tulsa, the school system is rebuilding buses using its own mechanics.

In most cases, rebuilding a school bus involves replacing the transmission (often converting the vehicle from manual transmission to automatic), replacing the engine (often converting from a gasoline engine to a diesel one), painting the body inside and out, reupholstering the seats, and making repairs to the chassis.

Because of the cash crunch many school systems find themselves in these days, the school bus rebuilding industry has blossomed in just the past few years. Gene Plankey, business manager for Diesel Fleet Service in Marquette, Mich., says his company began rebuilding buses in 1984 because it recognized what one company official called "the lack of money available for new school buses." Western Bus and Coach, a similar venture that started in Lamar, Colo., has been so successful that it is considering opening three new rebuilding plants. The firm's output has risen from five buses a month to nine, and officials expect the growth to continue.

And commercial firms don't have a lock on the rebuilding business. Several prison systems have entered the industry. One Texas prison plant rebuilt 370 school buses in 1987, and Virginia recently opened a rebuilding facility at its prison in Lawrenceville. The Virginia operation's brochure promises that "all work and materials used in the repair of school buses will meet or exceed state and federal standards."

Rebuilding is an option for boards that want to wring a few more years of service out of an old bus



In Tulsa, the transportation department enlarged its bus maintenance bay and has a foreman and five bodymen/mechanics working swing shifts to rebuild a bus every 13 workdays.

All of this activity in the rebuilding field augurs well for school board budgets—because rebuilding school buses offers low cost and extended life for the equipment. Totally rebuilding a 65-passenger school bus, for example, costs approximately $23,000 at a commercial rebuilder. (Tulsa does it on its own for approximately $18,000.) These are clear if not dramatic savings compared to buying a new vehicle: A new 65-passenger school bus, usually costs between $28,000 and $40,000, depending on options, says Terry Whitesell, an executive of Wayne Corp., a bus manufacturer. Frank Dixon, transportation director of the Fairfax County (Virginia) schools, says he currently pays $35,000 for a bus of that size, generously equipped with options such as automatic transmission and an adjustable driver's seat.

The savings that can result from a commercial rebuilding job—usually between $5,000 and $17,000 per bus—are diminished slightly by the rebuilt bus's somewhat shorter second life span. A rebuilt bus will last for between seven and ten years, says Rob Havenstein, president of Western Bus and Coach Co. School systems often expect a new bus to last as long as 10 or 12 years, or between 130,000 and 150,000 miles.

Havenstein says a rebuilt school bus (one with a gasoline-powered engine) will be serviceable for an additional 120,000 miles—possibly as many as 160,000 miles. And if the engine is converted to diesel, he adds, the bus can run for as many as 200,000 miles.

The most significant problem associated with rebuilding, say those who've done it, is scheduling time for the work. Rebuilding a bus can take as long as nine weeks. Time might pose no problem for systems with large bus fleets, but it is a concern for school systems that own and operate few buses. The ideal time to release buses for renovation, of course, is during summer, but that's not always possible: Many companies that specialize in rebuilding report backlogs during the summer months.

Another concern involves the discovery of hidden flaws that prohibit rebuilding. Say, for example, a school system slots a bus for renovation, and the rebuilder strips it to its chassis. Mechanics then find a major crack in the frame that rules out rebuilding. The school system then might be stuck without a replacement—or money to buy a new bus.

Careful budget planning, frequent inspections of buses, and timely rebuilding schedules can help avoid such problems. Rebuilding does not have to occur all at

Arthur G. Sharp is a free-lance writer in Rocky Hill, Conn.

once, for example; it can be accomplished in stages. Buses can be reupholstered and painted in one stage, and converted from a gasoline engine to a diesel engine and from manual to automatic transmission in another stage. The advisability of two-step rebuilding depends, of course, on the proximity of the facility that will do the work and the amount of time a bus can be out of service.

Deciding to rebuild

In deciding whether to rebuild a bus or replace it, consider its age and mechanical condition, the local climate, safety concerns, and regulatory requirements.

Age and mechanical condition. The older the bus, the more likely it is to need complete refurbishing. The mechanics in your transportation department should inspect the bus and check its maintenance records to decide whether it is worth rebuilding. Check for signs of joint stress or metal fatigue. Severe rusting of the chassis usually will rule out rebuilding as an option. And don't consider removing an old body and placing it on a new chassis: Under federal regulations, the age of the bus is determined by the age of its chassis; the old body will have to meet this year's safety standards—a prohibitively expensive prospect. If mechanics have doubts about the fundamental serviceability of a bus, they should consult with the rebuilders to determine whether the expense is worthwhile.

Climate. Buses in western states might make better candidates for rebuilding than those in the Northeast, because the West's drier climate, more level terrain, and better roads generally result in less wear and tear on buses. Conversely, buses exposed to harsh elements over many years might not be worth rebuilding. Ask your transportation director for help in making this decision.

Safety. Rebuilders insist that rebuilt buses are fundamentally as safe as new ones. Of course, the fact that older buses might lack the latest safety devices could give the edge to new buses. The National Highway Transportation Safety Administration (N.H.T.S.A.), the federal agency responsible for school bus safety, never has conducted a comparative study, according to William Liu, a safety standards engineer at N.H.T.S.A. But according to Leslie Drake, an underwriter for Lancer Insurance Co., a school insurer in New York City, accident insurance rates are no different for rebuilt buses than for new buses.

Gene Kotlarek, chief executive officer of Western Bus and Coach, says, "Safety is foremost in our minds. We won't rebuild a bus if we think that passengers' safety is going to be threatened." Rebuilders can, of course, add some of the safety features that were federally mandated in 1977—notably, high-backed seats and safety cages around gas tanks. Although these features are not required on rebuilt pre-1977 buses, adding them might be a good idea: After all, the buses could be in service for another decade.

Regulatory requirements. In addition to the federal standards, each state has regulations governing school buses. In some states, the rules are more stringent than in others. In choosing a rebuilder, be sure the firm can meet the regulations in your state. You also must make sure that the rebuilder keeps the bus in compliance with the original safety standards for that bus.

For example, the federal standard on joint strength applies to school buses built after 1977; the rebuilder must be able to meet that standard. Your transportation director can find the standards that apply to any bus by looking at its vehicle certification label to determine the year of manufacture and then by writing the manufacturers of the chassis and body (possibly different companies) for the specifications for that year.

The decision to rebuild buses should be a careful one. For some school systems, rebuilding might be a useful step in a bus management plan. Or it might be a way to transport pupils through some financially lean years. If you are looking to conserve transportation funds, rebuilding buses is one option your school board should consider. □

How do you rate this article? Please turn to the reply card facing page 50 and circle *124* if you think it's excellent, *125* if you think it's good, and *126* if you think it's lousy. Thanks.

. . . While others conserve cash by converting from gasoline to propane

By Scott A. Rasmussen

HERE'S (POTENTIALLY) GOOD news for school boards dismayed by the high cost of student transportation: In the five years since 30 buses in our school system's 36-bus fleet switched from gasoline to propane fuel, we've saved approximately $75,000 in fuel and maintenance costs.

Our experience with propane-fueled school buses in the David Douglas Public Schools (K-12; enr.: 6,000) in Portland, Ore., began in 1983, when we decided to convert two gasoline-fueled buses to propane and compare costs with our regular buses. After six months, the advantages of propane were obvious, and we switched over to propane—except for six older buses that were scheduled for replacement anyway.

The primary advantage of propane is price: Since 1982, propane's cost per gallon has ranged from 4 to 40 cents less than gasoline. And considering the likelihood of increased oil prices, we expect the cost savings of propane to improve in years to come.

Price stability is another advantage: "Gasoline is like the stock market," says Jerry Barron, our student transportation director. "The price changes daily." Not so with propane.

Another savings advantage is lower maintenance costs. Propane engines don't require a carburetor—that means fewer maintenance problems—and the "cleaner" fuel results in a longer engine life. "Some of our engines are six years old,

Scott A. Rasmussen is vice chairman of the David Douglas School Board, Portland, Ore.

and we've not experienced any problems," Barron says. "Even considering the $1,200 price tag for converting each bus to propane, we began seeing real savings within two and one-half years."

Propane has other advantages as well. Because the gaseous fuel is stored under pressure, fuel tanks are thicker and stronger than gasoline tanks and thus are highly unlikely to be punctured on the road. This safety feature is backed up by a feature that limits fuel leakage by shutting down the fuel system should gas pressure drop.

Finally, propane burns cleaner than gasoline. And in a state such as Oregon, where stringent environmental quality regulations exist for public vehicles, our conversion has been a great help. We've seen few problems with state inspectors who previously cited us for the sooty exhaust that sometimes pours out of older gasoline-fueled buses. And because the fuel already is vaporized, starting up our buses on a cold morning no longer is a problem.

Of course, no fuel system is perfect. Our school district consists primarily of relatively flat terrain, so we've not been bothered by what appears to be slightly less power in propane engines. It's possible that school districts in hilly areas might find that propane-fueled buses have difficulty with steep roads.

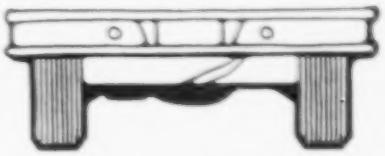
The skeptics among you might have heard of school systems experiencing problems with propane fuel, so right now you must be wondering how to square their stories with ours. We think we have the answer: "When you hear about a district that has had a bad experience with propane, it often has to do with how the buses were converted," Barron says. "Conversions can be done poorly, and leaks and mechanical problems crop up."

We attribute our school system's success with propane to the policies and practices our transportation department followed to ensure safety and performance. Among those policies:

• *Administrators investigate the references and previous work of contractors bidding for conversion work.* Small companies without the testing equipment to monitor the quality of each conversion are dropped from consideration.

• *Strict specifications outline the responsibilities we expect of contractors.* In addition to the engine conversions, the company must serve as the school system's propane supplier, train employes in proper maintenance of propane-fueled engines, and guarantee regular refueling of our storage tank and quick service should a conversion problem arise.

'We succeeded in converting to propane because we developed practices that ensured safety and performance'



• *Employe training is emphasized.* One of our mechanics attended a workshop to be licensed as a propane-system mechanic and installer, and he trained others to perform simple maintenance work and taught drivers safe fueling procedures.

• *A strict preventive maintenance schedule is followed.* All buses are inspected semiannually, and mechanics and drivers are expected to report any potential problems they notice in their routine inspections.

If you're interested in propane conversion, following similar procedures will help immensely in keeping your experience on track. A little research also will help.

Example: Although some companies will sell you a storage tank, others are so eager for your business they'll lease you a tank for as little as $1 a year. Uncovering and investigating such tips can make the difference in the ultimate cost effectiveness of conversion.

Switching to propane-fueled school buses might not be right for every school system. But we can say our five years' experience with propane has been a hit, and we're 100 percent behind it. With such a testimonial, it's something you should keep in mind. □

How do you rate this article? Please turn to the reply card facing page 50 and circle *127* if you think it's excellent, *128* if you think it's good, and *129* if you think it's lousy. Thanks.

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Put safety first—and make your buses last

THOSE SLEEK NEW school buses you just added to your school system's fleet—complete with efficient diesel engines, automatic transmissions, and air brakes—represent an investment for your school system of more than $30,000 each.

But your transportation buying decisions are far from over after you've purchased new vehicles. You'll need to budget for at least two more expenses: adding accessories that will enhance your new buses' safety and road worthiness, and maintaining those vehicles once they're on the road. Here's a sampling of some of the products you'll want to look into:

☐ *Tires.* The television advertisement that shows an infant sitting inside a tire says it all: "... because so much is riding on your tires." Replace that infant with a school-age child, and you'll understand the need to buy the highest quality tires for your school buses.

Transportation officials agree: When it comes to tires, the brand name really *does* matter. But that's not to say you should look at only a few brands. Between 10 and 15 tire manufacturers sell products considered "top of the line." So when you make your buying decision, you should quickly be able to satisfy your desire for high quality and get right down to specifics.

You're going to buy several sets of tires over the life of a bus, so the longer your tires last, the more money you will save. Tubeless, 10 or 12-ply radial tires generally have a longer life, are more durable, and are more trouble free than other tires. (The 2 or 4-ply tires you find on most automobiles are too thin for school bus use; tires thicker than 12-ply will provide too rough a ride.) Look for tires that feature a "stone ejector" tread pattern that kicks out stones and other road debris, thus protecting your tires from punctures. Expect to pay approximately $150 for a tire with all of these features.

Once you have found a high-quality tire at a good price that meets all your state's requirements, stick with that brand. Putting different tires on the same bus—no matter how similar they might seem—can cause steering and stopping problems and uneven wear and tear on the vehicle.

☐ *Tire cables.* Standard tire chains are being used less these days, yielding to the increasingly popular tire cables. These steel cables have some distinct advantages over traditional chains: They are lighter and less expensive (from approximately $35 to $50 a pair, compared with as much as $80 for chains). And cables are safer: When chains break during driving, they can cause extensive damage to wheels and fenders. Cables, on the other hand, can snap, but because of their rigidity and light weight, they won't cause as much damage.

☐ *Road-speed governor.* Although it's not likely to be standard equipment on your new buses, a road-speed governor can be a lifesaver. With a road-speed governor, your drivers won't be able to speed or accelerate too suddenly. The device attaches to the carburetor and limits how fast the bus can go—and how fast it can accelerate—by limiting the amount of fuel entering the engine (but you'll still have enough power when you need it, such as when merging onto a highway). The top speed possible on a bus equipped with a road-speed governor generally is from 45 to 55 miles per hour. The cost of from $200 to $300 per device, according to one school transportation official, is "worth every penny."

☐ *Other safety devices.* Speaking of safety, some other devices should be standard equipment on all your buses. One is a metal guard, shaped like a flat figure eight, that can be extended from the front of the bus. When the guard is extended, children crossing in front of the bus must walk at least eight feet away from the vehicle, where they are in full view of the driver. A safety guard can be purchased for less than $100.

Large, convex mirrors installed on both sides of the bus will allow the driver to see down one side of the bus and across the front, again preventing a possible tragedy. These mirrors cost from $10 to $15 each.

A flashing stop sign, which can be extended from the side of the bus just below the driver's window, warns motorists on the opposite side of the street that children are crossing. The stop sign costs approximately $200.

Fully equipping your new school buses will cost some money, but you'll be paid back in longer life-span for the vehicles and increased safety for your student passengers. ■

For valuable technical assistance in the preparation of this article, THE EXECUTIVE EDUCATOR *is grateful to: Frank Dixon, director of transportation, Fairfax County (Virginia) schools; and Chuck Higdon, warehouse superintendent, Fairfax County Equipment Management Transportation Agency.* For more details, please check Transportation on the reply card facing page 26.

SECTION 7

PROGRAM DECISIONS

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Our self-supporting preschools meet the needs of rural parents and children

By Linda Graves

PRESCHOOL has become a necessity for many families today. Increasingly, both parents have full-time jobs, and often they want their children cared for in a school setting. Parents in rural Putnam County, in northwestern Ohio, are no exception to this trend. In our county of 3,000 people and nine local school systems, farming is the main occupation; we have smaller numbers of professionals and blue-collar workers.

The county was served by four preschools, but three of them were located in Ottawa, Ohio, the county seat—a 36-mile round-trip for parents in some communities. After receiving requests from many road-weary parents and studying the local demographic patterns, the Putnam County Office of Education decided to apply for a state grant to set up a small local preschool—the first of what is now a three-preschool program.

The state gave us $6,000 to pay for supplies, equipment, in-service programs, and contractual services for one year. After that, the preschool had to be self-sufficient.

When we approached the local schools with the proposition, at first only one—Pandora-Gilboa Elementary School—agreed to house the preschool in an unused classroom. We designed the program to accommodate ten children, ages four and five. After examining various preschool programs, we selected the High Scope curriculum, which aids in children's cognitive development by letting them plan and do a variety of daily activities—such as painting, playing house, playing with dolls, and pretending to cook. The emphasis is developmental, not academic; children make progress at their own rate.

To staff the preschool, we selected an elementary school teacher who had studied early childhood extensively. We sent her to an observation session at the High Scope Foundation in Ypsilanti, Mich., before school started and gave her opportunities for in-service training during the year.

When we released articles to local newspapers informing county residents of the new program, the response was tremendous. We soon had a waiting list. Now the preschool is in its fourth year, and each year we have had full classes. We've also started preschools in two different local schools—also funded initially with grant money. The new programs are now in their second and third years. Each class now has from 14 to 16 students, plus a waiting list.

> ***We believe our efforts at early education will result in fewer at-risk children.***

We hold an orientation day for students and parents, at which the teacher/codirector meets each child and explains the program's objectives to the parents. The preschools meet on Monday, Wednesday, and Friday from 9:00 to 11:30 a.m.

A preschooler's day: First comes "planning time," during which children choose materials for play and discuss their plans with the teacher. During "work time," students go to one of six different work areas of their choice. After 55 minutes, it's "cleanup" time, which gives children a chance to locate things in the room and helps them learn to match objects to labels and find similar objects. "Outside time" comes next, giving children an opportunity to work on their gross motor skills. "Small group time" then features snacks and discussion. "Circle time" ends the day with music, stories, and other group activities.

During the year, the county speech and hearing therapist evaluates each child and provides any necessary remediation. The teacher meets with parents twice a year to tell them about their child's progress. Parents also receive a weekly newsletter about events in the program.

The preschool isn't a burden on the host school, because the codirectors take care of all the administrative duties. Instead, the school basks in the many good words the preschool receives. The local school enjoys the pride of ownership, but the county office remains the fiscal agent and director of the program.

During each preschool's first year, parents paid a nominal fee of $7.50 per student per week to help cover snacks and extra supplies. The teacher was paid out of the grant funds. But once the preschools became self-supporting, student fees increased to $15 a week to cover the teacher's salary, as well as snacks, and supplies. Except for the free loan of the schoolroom, the program is completely self-supporting. Certified teachers are paid in accordance with the county teacher's salary schedule.

We're proud of our preschools and believe our efforts at early education will result in fewer school failures and at-risk children, higher achievement levels, lower dropout rates, and increased college attendance rates. Getting started was easy, thanks to the seed money from the state and the organized efforts of the codirectors, parents, and teachers. Although we live in a remote rural area, we believe we can give our children many of the same opportunities available to the children of suburbia. □

Linda Graves is one of two codirectors for the Preschool Program of the Putnam County (Ohio) schools.

How do you rate this article? Please turn to the reply card facing page 46 and circle 190 if you think it's excellent, 191 if you think it's good, and 192 if you think it's poor. Thanks.

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SPECIAL REPORT Early Childhood Education

A NONGRADED, MULTI-AGED PROGRAM THAT WORKS

T. Marjorie Oberlander

Here's how an approach borrowed from the one-room school helps bridge the development gap between kindergarten and second grade.

Don Chisholm

In the spring of 1987 the principal and some of the teachers at John Campbell School got together in an attempt to find a realistic way to bridge the developmental gap between the kindergarten and first grade without holding children back a full year. We discussed several ideas, including transition rooms, but all of them involved separating children from their peers, which we were reluctant to do.

We wanted to develop a plan where youngsters could learn in heterogeneous groupings and still have the time necessary to master the curriculum. Eventually the discussion produced an intriguing suggestion: What would happen if we mixed five-, six-, and seven-year-olds in one class, like they did in the old one-room schools? Could we successfully mix these ages, along with a few eight-year-olds, and have the same teacher teach them—for up to four years if necessary—until they mastered the second-grade curriculum?

The more we talked in subsequent meetings about developing such a nongraded, multi-aged program, the

T. Marjorie Oberlander is director of elementary education for the Yakima Public Schools in Yakima, Washington. She was principal of the John Campbell School in Selah, Washington, when this article was written.

greater the enthusiasm grew. Finally, five experienced teachers volunteered to try it during the 1987-1988 school year. All of them had taught first grade, and most had also taught kindergarten and second grade. One was a reading specialist, two were trained in early childhood education, and two had taught in multi-aged settings before. They were very eager and I was confident that they could make the program work even though we had no extra funding and no model to follow.

We found an open area large enough for five classes, which was advantageous for planning and visual contact among the teachers. The plan was to assign each teacher approximately 30 children from five to eight years old. The children in these multi-aged groups would stay together with the same teachers until they mastered second-grade skills and moved into third-grade classrooms.

In order to assure that each group had a normal heterogeneous mix, we assigned children who were perceived as high, medium, and low in each class. We also made sure that each teacher received some children in need of special education, some minority children, and a mix of boys and girls. If parents requested that their youngster be in the program, we tried to accommodate them—if it didn't unbalance the heterogeneous mix. We did not put any students in the program whose parents did not want them there.

The kindergartners posed the most difficult scheduling problems. In our half-day program, one of the teachers had taught about 25 kindergartners in the morning and 25 in the afternoon. To integrate these children into the new program, we decided that all of them would attend in the morning. In that way we could start the day with approximately 50 kindergartners, 50 first graders, and 50 second graders divided among five teachers. Each teacher would have about 30 multi-aged students—ten from each grade—until late morning, when the five-year-olds would leave. Each teacher would then finish the day with approximately 20 older children.

Don Chisholm

Another problem we faced was some initial skepticism from the music, physical education, and library specialists about teaching a multi-aged group of youngsters. Although we had little difficulty in adjusting music and library instruction, we were a bit concerned about the developmental aspects of physical education. Early in the year the teachers worked with the physical education specialist to analyze children's physical skills before regrouping them into different physical skills groups. For 30 minutes each day, one of these groups would go to P.E., two to music (different teachers), one to the library, and one to a class in personal safety and drug and alcohol awareness. The arrangement worked well.

In order to teach children of different age and developmental levels, the teachers have created a concrete, hands-on environment where children are actively involved. They use a whole-language approach to reading, writing, and spelling. Social studies and science are integrated into special teaching centers, with units rotated each year to avoid repetition.

The whole-language approach incorporates speaking, listening, chanting, singing, writing, and spelling in many different settings. Children learn the rhythm of language and how it is structured. The teachers have found that the six-and seven-year-olds can read more difficult books and can write whole stories while the five-year-olds dictate stories or look up words in a book.

Because multi-aged children cooperate and learn from one another, the teachers feel that they have been able to meet most students' needs at appropriate levels without resorting to ability groups.

Now in its second year, our program has been successful because it provides a developmentally appropriate environment for young children without rejection or separation from peers. If a child needs additional time to learn certain skills, it can be provided in a comfortable, familiar setting. The program can be tailored to their needs and achievement and it includes lots of teacher/student interaction, hands-on experiences, cooperative learning, peer tutoring, and an integrated approach to learning—all elements recommended for young children by the National Association for the Education of Young Children.

I hope other administrators will see the advantages of this approach and look for creative ways they might apply the same concept to their early childhood programs.

Campbell School's Nongraded Schedule

8:15- 8:30	Opening and calendar
8:30- 8:40	Silent sustained reading
8:40- 9:20	Language experience and centers
9:20- 9:55	Special classes
9:55-10:10	Recess
10:10-10:55	Centers (integrated subjects)
10:55	Dismissal, half-day children
10:55-11:55	Math
11:55-12:45	Lunch
12:45- 1:00	Story reading by teacher
1:00- 2:00	Reading
2:20	Dismissal

Serving the Gifted in Rural Areas

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Telelearning: Making Maximum Use of the Medium

Gail Lewis

Business technology is used in an innovative project to offer advanced academic courses to gifted students in rural areas. Using computers, electronic blackboards, modems and phone lines, highly interactive classes are provided at low cost. The program, funded fully by the state, uses master teachers at the Louisiana School for Math, Science and the Arts to transmit classes in calculus, trigonometry/precalculus, survey of the arts, French and western civilization to students in rural and isolated areas. The program, easily replicated, is one answer to the problem of serving rural gifted students at the high school level.

***Gail Lewis** (Ed.D.), serves as Co-Director of the Telelearning Project and as Head, Department of Creative and Performing Arts at the Louisiana School for Math, Science and the Arts in Natchitoches, LA. She is currently working with the Torrance Center for Creative Studies to identify creative scholars in Louisiana.*

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Long-distance learning, at its best, is the marriage of education to leading edge business technology. A subset of the more general term, telecommunications, long-distance learning, or telelearning, is used at the Louisiana School for Math, Science and the Arts to send advanced courses to academically talented high school students in rural areas throughout Louisiana.

Although educators have experimented with telelearning at a variety of institutions, the Louisiana School program combines low cost with high interactivity — a powerful combination. A simple and cost effective design connects the teacher and students interactively through the use of personal computers, modems, Optel software, microphones, and electronic blackboards. Students may communicate with students at other sites and with the teacher through audio feedback, computer keyboard or graphics pad; feedback is immediate and is received at all sites simultaneously. Commonly, three or four schools are linked to the teaching site at one time, with up to 20 students enrolled for each course.

Less expensive and more interactive than other methods commonly used such as uplink connections, the program provides some obvious benefits: extremely isolated rural areas can receive courses previously unavailable to them; interaction with students from other schools involved in the course provides cultural, social and intellectual stimulation; and students become increasingly independent learners, familiar and comfortable with computer technology. Because of the unique delivery system, the telelearning program is an ideal way to bring classes to gifted students in rural locations.

History of the Project

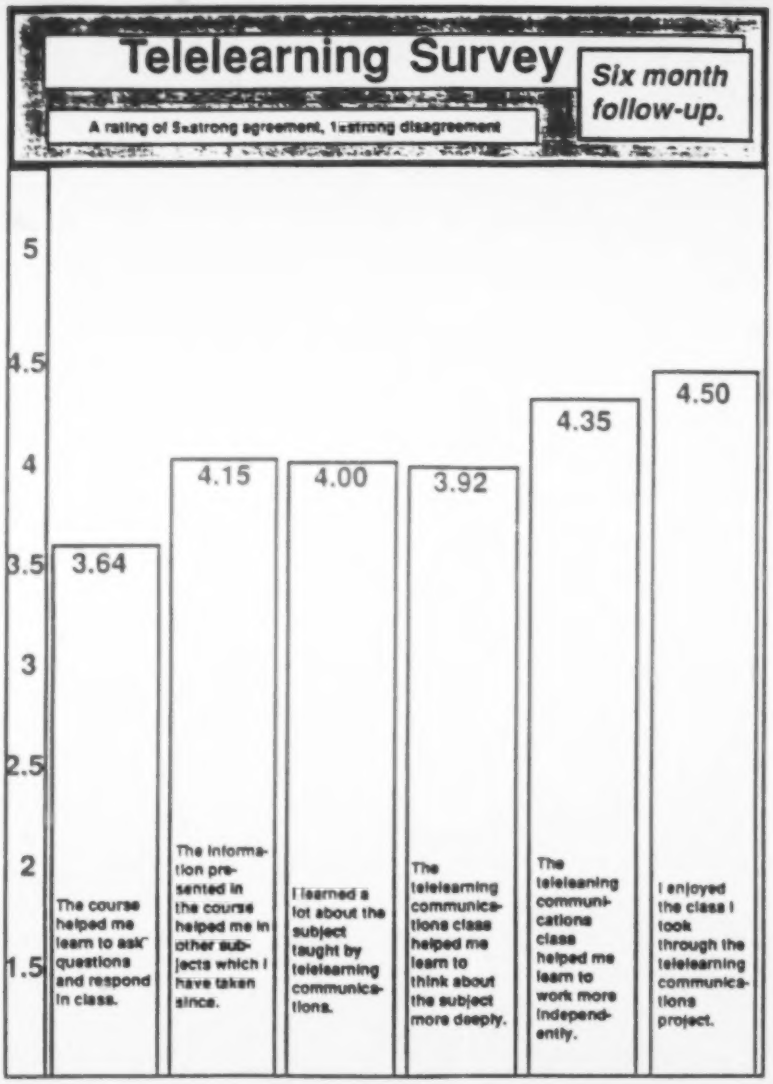
In response to a recommendation from a task force created by the State Board of Regents, a pilot project was initiated at the Louisiana School for Math, Science and the Arts (LSMSA) in the school year 1986-87. Two schools were linked to the teaching station at LSMSA during the pilot year. Students at both schools received instruction in calculus and survey of the arts. Thirty-three academically talented students were served.

Students and teachers rated the pilot program as highly successful. Although technical problems interrupted the class from time to time, participants learned to deal with such difficulties flexibly and without disruption to the coursework. Considering that the coursework was experimental and that neither students nor teachers had known just what to expect, evaluation responses were particularly gratifying. Modifications were made during the school year based on results of formative evaluations. At the end of the course, 82% of the students surveyed indicated that they would take another telelearning course if provided the opportunity; 84% said they learned as much as they usually do in a face-to-face situation. Responses to all questions indicated that objectives had been achieved. A survey administered in a six month follow up study indicated that students had profited from the course. Results of that survey are shown in Figure 1.

The program's success rippled throughout the state. Positive response from school systems led to a grant award of $150,000 for operation in the program's second year. Requests came in from other schools wishing to be included in the program. In the school year 1987-88, 73 students were served in three courses: calculus, precalculus/trigonometry, and survey of the arts. Students at seven different high schools throughout the state of Louisiana participated. Preference was given to schools in rural or isolated areas with no secondary programs for gifted students. Only schools not offering similar coursework were chosen. End of the year evaluations were positive, indicating that the program had achieved its objectives.

The success of the program during the second year and a growing awareness of the effectiveness of telecommunications led to requests from 40 schools to be included in 1988-89, with additional requests from out-of-state schools and one international program. For 1988-89, the program has expanded to 14 student sites with six course offerings: calculus, trig/precalculus, survey

Figure 1


Telelearning Survey
Six month follow-up.
A rating of 5=strong agreement, 1=strong disagreement
5
4.5
4
3.5
3
2.5
2
1.5
3.64
4.15
4.00
3.92
4.35
4.50
The course helped me learn to ask questions and respond in class.
The information presented in the course helped me in other subjects which I have taken since.
I learned a lot about the subject taught by telelearning communications.
The telelearning communications class helped me learn to think about the subject more deeply.
The telelearning communications class helped me learn to work more independently.
I enjoyed the class I took through the telelearning communications project.

of the arts, French I and western civilization. The network is potentially expandable to any size needed. Each teaching site can handle six subjects per school day, plus evening and weekend offerings. At the beginning of the school year, a schedule of courses is made available to schools chosen to participate. Schools register for the courses matching offerings to their own schedules. Maximum enrollment for a class is 20; each school may register one student or several. The ideal number of students at each site is six.

Technical Information

The system is composed of a teaching site with an IBM or compatible computer with 640 K, Darome modem, microphones for each instructor, Optel software and graphics pad with electronic pen, and 25" RBG monitor. Experience has illustrated that a separate phone line, dedicated to the telelearning class, without extension lines provides the clearest transmission. In addition, the computers ideally are equipped with compression boards and an image capture board.

Each student site is similarly equipped. For maximum interactivity, the number of microphones should equal every two students and at least one student at each site should have access to the graphics pad and computer keyboard.

The system is quite flexible, using a graphics pad with a four color palette. Instructor and students can write on the pad in longhand, making it an excellent tool for math classes. With the addition of a compression board and image capture board, video still pictures can be transmitted from one location to another. Although as much as five minutes can be used up by the transmission of video pictures, the system provides an excellent medium for transmitting pictures of art works for survey of the arts, for maps for history and for a variety of teaching tools. Because of the transmission time, it is generally more cost-effective to store images on floppy diskettes and transmit these by U. S. Mail or courier. Instructors have found the system to be limited only by their own creativity.

Course Design

To reduce the phone line costs, classes meet three days per week with the telelearning instructor. The additional two days are spent in off-line assignments. A proctor is always present at student sites and many school systems have made use of parents, librarians or volunteers for these positions. On a typical class day, prepared "screens" are transmitted via phone line to student stations prior to class. These screens provide the backbone of the visual material accompanying the lecture. Screens prepared on disks can also be mailed to reduce phone line costs and tests or other printed materials are routinely mailed. For the future, LSMSA plans to use a toll-free phone line so that students can phone in on off-line days for individual assistance.

Math Courses

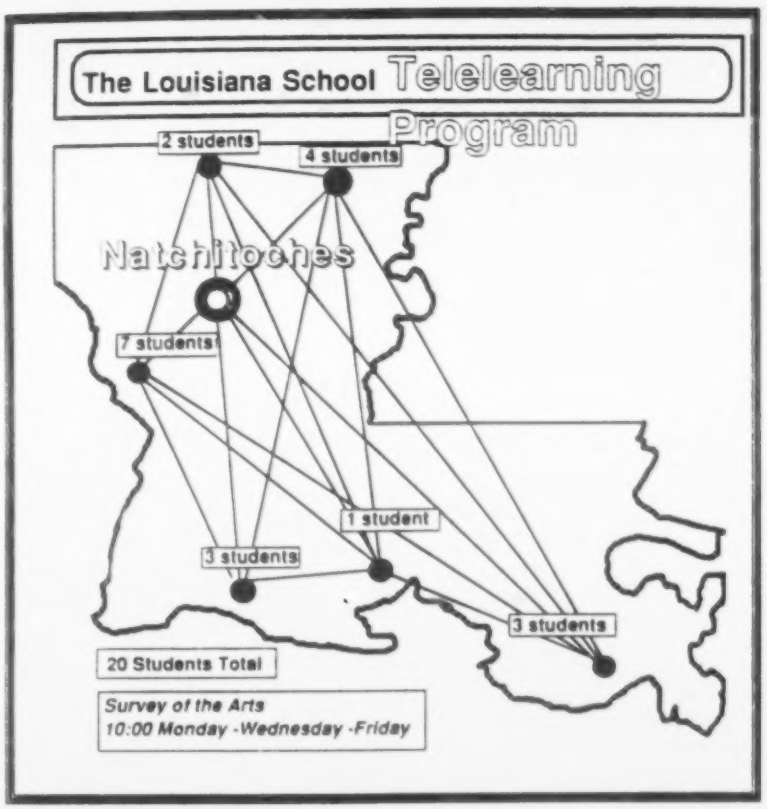
In the more sequential math courses, notebooks are developed as an auxiliary to the text. These notebooks include problems which are discussed by the teacher in the class and additional practice problems. Two week calendars are sent to students to indicate off-line assignments for which they are responsible and any variation in class meeting times.

Math courses are highly interactive, with students solving problems directly on the screen by using the penpad. The four color palette enables the teacher to write in one color and students another or for the teacher to use a multiple color array.

Humanities courses generally produce a calendar for the entire semester indicating lecture topics, listing all off-line assignments and all class meeting days. In addition, to eliminate the con-

Figure 2

Typical Telelearning Network For One Course



All teaching and receiving stations are equipped with a full equipment package: Tandy 3000 or 4000 Personal Computer, Optel Penpad, Modem and Software, Darome Convener and microphones and 25 Inch RGB monitor.

fusion which may result from not having instant access to the teacher, humanities courses provide detailed assignment sheets for each off-line assignment. These sheets include careful directions for completing the assignment, points which can be acquired from completion and name of the teacher to whom the assigment should be routed.

The survey of the arts class has been taught by a team of content specialists in the following areas: visual art, music, theatre, and history. Special attention has been paid to varying the instruction to include single lectures on specific areas, lessons by two instructors on certain topics (such as baroque art and music), and with three or four instructors on topics which provoke discussion and differing opinions such as the influence of politics on the arts.

Program Benefits and Limitations

The general objectives of the telelearning project are to bring advanced courses to rural high school students throughout the state while developing a model for the use of business technology in education. During 1987-88, calculus, survey of the arts and trigonometry/precalculus were offered to 73 students, while in 1988-89 120 students are served by seven courses. A particular strength of the program has been the ability to bring this coursework to one student or to 20, depending on the needs of academically talented students in rural schools.

While most observers would believe that the absence of a teacher from the classroom is the biggest disadvantage, students and faculty have been able to overcome this problem through flexible teaching, student independence and clever use of the graphics pad to provide stimulating visuals. Pure lectures do not work with the system, however outstanding the lecturer may be. It is too easy to be distracted from listening to a lengthy monologue. The strength of the system is its interactivity.

Teachers find it most difficult not to be able to read students' body language. Audio pauses while students are thinking often seem quite long; however, students and teachers quickly adjust. To ameliorate the problem, LSMSA teachers meet with each group in person early in the semester and mount pictures of the students at the teaching station. In addition, all students gather as a large group at LSMSA once during the year.

More difficult than not being able to see body language is the transmission of assignments by mail. Some are too lengthy to use computer transmission cost-effectively; use of the mail means that assignments may be lost or delayed. To be most effective, the number of items transmitted through the mail should be kept to a minimum.

Since technical problems occasionally occur — such as disruptions in the phone line or schools temporarily dropping off — it has been important to have the right type of phone bridge — one which has an operator on line to spot technical problems and to redial where necessary. A two way bridge which permits one site to speak while another site is controlling the line is especially important. Without the ability to interrupt, students cannot ask questions while the teacher is speaking or writing on the pen pad. The small extra cost of the bridge is well worth the expense.

Some difficulties have been experienced when schools substituted a different type of PC. Even though a system may be IBM compatible, some systems operate at different speeds and this may interfere with transmission of data.

The problems experienced have been minor when considering the benefits. Students report consistently that they have become more independent learners, since the teacher is not in the classroom and they must rely on themselves on off-line days. Relationships with one another have improved as well; small group learning is frequently used for off-line assignments and the feeling:

that they are explorers in a new territory tends to draw them close. Special contacts make important connections for rural students to the rest of the world. On one occasion, students were linked to a professional in New York City to discuss current conditions on Broadway. Future plans include linking math students to a writer of AP Calculus materials for a special lesson.

Very importantly, the students have become familiar and comfortable with the technology. For one survey of the arts assignment, students were asked to teach a ten minute segment of class. One school — with three students in the class — working from a remote site in Louisiana, taught a specialized art form, and in the process actually sent three screens over the phone line to accompany their very interactive lesson. In this way the students demonstrated their comfort with the equipment, since the classes had not been taught to use it in this manner and sending screens involves a fairly elaborate system of computer commands.

A definite benefit is the fact that demand for advanced courses is increasing in some telelearning locations. Two schools that participated in the program will offer their own course in calculus next year. In addition, the program offers some subtle rewards. Students in isolated areas traveled some miles to view arts events as a part of their work for survey of the arts. One remarked, "I didn't like all of the concert, but I was surprised at how much I did enjoy." A student in the trigonometry class entered a state mathematics rally and because he placed at the regional meet, traveled on to state level competition. His school could not have offered advanced math courses without the telecommunications program. Such benefits can never be measured statistically. The value of bringing advanced coursework to a student who would not otherwise have access to it is incalculable.

Three Factors for Success

The program can be easily replicated in other locations if three factors are present: master teachers who are content specialists with flexible styles; access to equipment for all locations; and funding for the phone line expense.

None of those factors can be missing. Teachers who are only comfortable as lecturers will lose the students. Those without content knowledge will have little to transmit over the medium. Many processes are involved in the courses taught in this manner since the system is highly interactive, but those processes are best tied to content in telelearning.

The combination of equipment previously described has been tested in college courses to prevent unnecessary travel for off-campus courses and in the high school program herein described. Other equipment combinations may allow less flexibility and are not recommended.

Phone line costs are, in most instructional settings, the biggest single expense once the equipment has been acquired. Several companies provide the service and due to competition costs are constantly being lowered. Judicious shopping and careful composition of classes can reduce the cost further. Even with current rates, these courses are less expensive than the less interactive medium of television courses combined with toll-free numbers for call-in questions or when compared to hiring a teacher on site.

Program Funding

The Telelearning Project is funded entirely through a state grant using 8g funds. Participating schools receive the program free, as instructional costs and equipment acquisition are budgeted in the grant. LSMSA, as grantee, is responsible for purchasing the equipment, providing instruction, selecting participating schools and administering the program. Equipment is loaned to participating schools who are then responsible for selecting students for the program and for providing a proctor for each class.

The program could be easily replicated by any institution with access to master teachers and funding for the operating costs. In the absence of grant funding, participating schools could pay a course fee. While costs would vary depending on the instructor's need to be paid, the following cost units are basic to all programs.

Equipment package

IBM compatible computers (Tandy 4000)
Optel penpad
Optel software
Optel modem
Darome microphones
Sony RBG monitor, 25"

Estimated total per teaching and receiving station: $10,000

Operating Costs

Phone bridge with operator on line

Estimated total per hour of instruc
per station:

Ranging from $15 to $30 per hour

While cost of supplies and i
vary according to local ne
important that teachers new to
system be given time to prepare ma
rials for the course and learn to use
equipment. The Louisiana progr
pays new teachers summer salaries
three weeks for the first two summ
they are involved with the program

Because of the size of the proj
two LSMSA administrators
assigned to serve as codirecto
and a full time secretary is employed
the program. The secretary's duti
include maintaining contact with th
schools, copying diskettes, organizi
mailings, serving as secretary to th
codirectors, purchasing supplies an
managing the program's budget.

Plans for Expansion

The telelearning faculty has devel
oped instructional methods and curric
ular materials to make the best possibl
use of this leading edge technology
Visitors from business and industry
have watched the progress of this
program with interest. It is a p
with promise; making maximu
the medium will take education right
into the future.

In the immediate future, LSMSA will
continue the program begun in 1986 to
develop and implement courses, course
materials and syllabi; to create aware-
ness of the program within the state
and its educational system; to develop
interest in the program; to serve rural
and isolated schools with direct instruc-
tion; to continue exploration of the
state's needs and expand the program
to meet perceived needs; and to seek
funding for expansion and continuation.

Presently, administrators and staff are working to develop new courses appropriate for the medium; to increase the funding base; develop public relations materials; and to explore new uses for the network linking Louisiana's schools. While assuring the continuation of the program and building on its strengths, it is important that the program engage in research and development — stretching the medium to the maximum and, thus, staying on the leading edge.

The Rural Gifted on Line: Bulletin Boards and Electronic Curriculum

W. Thomas Southern
Howard H. Spicker

An electronic bulletin board and video tape exchange network was designed to augment the limited personal and professional resources available in seven rural communities. The network afforded opportunities for gifted students to share and exchange information concerning their common study units on the environment and on their immigrant roots. The strengths and weaknesses involved in implementing an electronic network of this nature are described.

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Indiana University's Rural Information Network for the Gifted (Project RING) was designed to help rural districts provide opportunities for gifted students to interact with students like themselves, to provide access to the information and people resources of a major university, and to make the students themselves an information resource for other participants. The project linked rural districts in an electronic bulletin board and video tape exchange network that was designed to augment personal and professional resources for gifted students and their teachers. Five and then seven geographically diverse sites in the State of Indiana participated in the three years of the project, providing service to nearly 200 students in grades 4-8, and 30 teachers. At the heart of RING was a commitment to incorporate the strengths of the various districts involved. This was accomplished through the use of common instructional units that tapped the local heritage, human and physical resources, and unique demographic features of the participating districts. In addition, the project was designed to supplement the information resources and professional expertise available to these students. To this end, university faculty functioned as consultants, resource managers, and mentors to students as they developed individual and small group projects off the umbrella unit that was being studied.

Students were asked to collaborate with other students on tasks that required common data from the various sites. In addition, resources also were dedicated to allowing students to use the computer to communicate with one another on topics unrelated to their project. Whereas gifted students in rural communities seldom have the opportunity to interact with students who are like themselves, it was felt that any interpersonal communication among gifted students should be encouraged. In addition to the computer network, two face-to-face meetings with all of the participants were also held. Research indicated that personal contact might enhance the volume of interaction between telephone or computer network participants (Chambers & Sprecher, 1980). More importantly, it seemed that students needed to see with whom they were communicating to achieve the socialization goals of the project.

Organization

The Network

The major mechanism of the exchange used by the project was a computer bulletin board. Bulletin boards can offer gifted children some obvious benefits. It allows them to participate in social and intellectual exchange without concern about their physical appearance or differences in age. Currently, such boards operate for a wide variety of special interests, and with a wide range of computer hardware. At the time of the formulation of the project, bulletin boards were much less common than they are now. RING represented a new approach for educational programming, and, even now, the use of bulletin boards in schools is relatively novel.

Initially, software for the board was developed by consultants specifically for the project. Difficulties involved in the use of this software caused a shift to less sophisticated, but more reliable, commercially available software. A dedicated IBM XT computer housed on the Indiana University campus was selected.

Three levels of access were provided for participants. Messages could be sent confidentially to any other user on the system; they could be directed to any member of another group; or they could be presented to any bulletin board participant. Access to any of the levels was provided to students, teachers, university faculty, and project staff managers. The entire operation was monitored by a system operator (Sysop) whose job it was to monitor the board and keep it current and free of libelous material.

The Unit

An environmental unit was developed for a pilot project. Each of the five districts participating the first year identified a local environmental concern that constituted a real problem. These issues included such problems as the pollution and erosion on sand dune; the effects of excessive tourist traffic on wildlife; the effects of surface coal mining on water and soil erosion; and the disposal of solid waste. Because students were dealing with the problems that were important to their communities, a wide array of experts on these particular problems was available at each site. Activities were designed to encourage the students to identify a project appropriate to the environmental concern of their area, and to communicate with other districts about their progress.

Students were brought together at the end of the pilot program, and allowed to share the results of their projects. Awards were presented for project completion and outstanding efforts were recognized.

The School Districts

More important than any population or isolation criterion for inclusion in the project was the nature of the population of the school district. All of those participating were relatively small, and most were isolated from large urban areas. One school district described its isolation by saying it was one hour from a K Mart. Another was only 45 miles from downtown Chicago. Yet for many of the people in that community, it might as well have been 450 miles. The vast majority of students from this small district reported never having visited Chicago. Indeed, only 15% indicated they had visited a major national park and state recreation area less than 10 miles away. The districts were uniform in representing what Carmichael characterized as rural (Clark, 1983).

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The Participants

The project did not impose common gifted-identification guidelines on the individual projects participating. In consequence, selectivity varied greatly from district to district. One of the districts used a very selective procedure that identified 5% or less of the population at any grade. Two of the districts used moderately selective procedures that identified 6-14%, and the two remaining districts used more liberal procedures that identified 15-23% of their population. This range was accepted because excessively strict identification standards, particularly those that rely heavily on standardized tests, tend to under-identify gifted students from traditional rural areas (Spicker, Southern, & Davis, 1988).

The Pilot Project Results

The first year of operations revealed several major difficulties. Some were occasioned by hardware configurations, over and above those caused by computers and modem problems. In many rural areas, for example, telephone lines and service quality caused difficulties in data transmission.

Software also caused difficulties. In the first year, a major emphasis was placed on security, with the use of elaborate passwords, and log on/off procedures. Students unable to type 10 characters without error were consistently logged off the system.

Because the project was new, and because most of the participants had little experience with computers, difficulties with training and access were also encountered. Teachers were sometimes reluctant to allow students adequate time on the network because of the cost of the long distance service being used. Most of the teachers in the project were not trained teachers of the gifted. Many were unaware of methods to facilitate and direct student projects. In some school districts, the hardware was housed at a different location from the students' classroom, thus further limiting their time on the network.

Still other difficulties were related to the nature and timing of the unit chosen. The environmental unit was viewed by participants and even teachers as primarily scientific thus reducing the involvement of students whose talents and interests were in the arts or the humanities. Furthermore, the unit was conducted during the winter months making outdoor field trips and research projects somewhat hazardous. In fact, on the first outing to videotape one of the research sites, the group's video camera froze.

Participant projects represented a wide range of quality. Of the 41 small group projects, only 17 were rated good or superior by content area judges. Twelve were rated average, nine poor, and 3 as inadequate. Fifteen percent of the students did not complete a project. Despite these disappointing results, there were some successes during the pilot year. A team of outside evaluators noted the following program strengths:

1. The project made students aware of local environmental concerns and that these concerns have implications beyond their local boundaries.
2. It provided the opportunity for students to identify a project goal and to complete it. At least four projects were displayed in the Dunes National Park Information Center, and one project, an environmental game, was reviewed by a game manufacturer with positive comments.
3. Districts received a great deal of positive publicity through local and regional newspapers. Communities were supportive and excited.
4. The project provided impetus to the districts to widen the scope of their offerings to gifted and talented students far beyond what had been the case.
5. A coterie of teachers were created who were excited enough to continue with the program the following year.
6. Many students had their first extensive contact with the resources and facilities of a university campus. Several were sufficiently excited by the experience that they reported new career plans.

Year Two Modifications

Year two of the project witnessed some innovations designed to address the problems noted in the pilot project. A new hardware system was purchased to extend the capacity of the board for storage. A more complex bulletin board was used that allowed message editing, word wrap at line ends and additional special purpose boards. One of the latter, dubbed the Grumble Board, was dedicated to student only use, and secured from teacher monitoring. Designed to provide an outlet for student social interactions and shelter from teacher censorship, it also allowed the staff to gather some valuable unobtrusive data about the perceived effectiveness of the project at each site. At several points, the university staff was able to make key visits to schools concerned with issues noted through remarks on the Grumble Board. For example, a complaint surfaced that too much extra work was being assigned in addition to their already highly demanding projects. Conferences with project teachers provided relief from these assignments.

One of the important characteristics of rural districts is a desire to keep alive the values and heritage of the local community (Carmichael, 1982; Lewis, 1982). With that in mind, a second unit was employed in the spring semester to complement the skills and talents required by the environmental unit and to acknowledge the reality of outdoor winter conditions in Indiana. The Indiana Immigrants unit was targeted to emphasize the people who chose to settle in Indiana, from the early Indians to the current influx of Southeast Asians, and to determine what made them choose these areas as their new home. It allowed students to examine their home, and their place in it.

To encourage students to form alliances across districts, two projects were integrated into the unit. The first was the creation of a common data base which included statistics on population, political elections, number of schools, employment figures on a specific date. The second was a social history comparison of one of two major local institutions, their schools, or their Main Street or Town Square. Interim deadlines were included, and small group meetings were scheduled to further encourage student usage.

Results of Subsequent Years

Year Two represented a significant improvement over the pilot study on a number of outcomes. The new hardware and software were successful. In four of the seven school districts, downtime for the project was reduced effectively to zero. Student usage climbed and student information requests and social contacts increased sharply. The number of consultation for faculty assistance requests also rose, averaging three to four per week during the second semester. Some downtime did occur for individual districts primarily due to hardware problems in three sites; but staff technical assistance was able to respond, in most cases, very quickly.

Computer interaction among teachers remained a major disappointment. Though a few teachers did use board notices for information and support, most contact was purely administrative. Teachers did contact each other independently over the phone, but these contacts were specifically to

someone they had met during the initial meetings and were not recorded as official exchange.

The mechanisms that were designed to encourage interactions among the various sites worked well. During a data base comparison, one district discovered that the Depression of 1929 had had only minor impact on their community because it had not recovered from the economic panic of 1890 which had effectively killed their major industry.

Similarly, the examinations of community records were often valuable in the exchanges they generated as well as the original research they required. For example, students at one site uncovered hand written town ordinances from the 1860's and 1870's that dealt with zoning and utility management. These were transcribed and retyped on word processors for the project. Then copies were donated to the library and the town council. In another site, students generated comparison maps of town growth across several periods. These revealed to students that goods and services, notably entertainment, were spread throughout their county but within smaller townships some of these services were no longer available. The conclusion of the group was that individual transportation made regional centers for shopping and entertainment feasible, while those in smaller, rural areas died.

Final Projects

The final project sharing was held in May with all participants contributing individual or small group projects for judging in several categories. In contrast to the pilot experience, completion rates exceeded the 95% minimum targeted by the staff. The majority of the projects were highly rated by a group of independent judges.

The projects fell into one of two types — school umbrella projects which attempted to link individual researchers into a comprehensive product, and small group efforts. An example of the former was one district's history of one room schools in the area. Approximately half of the group (8 students) collaborated on the project sharing research, interviewing, and composition tasks equally. The resulting booklet gave evidence of good historical writing, research techniques, and creativity. Such efforts were somewhat more successful overall than unrelated small group products which varied widely in content and quality. One of the better ones was a study of the effects of railroads on community growth undertaken by two participants who incorporated research in public documents, newspapers, a diary, and personal interviews about the early twentieth century railroads in their area. Two seventh grade students compared architectural features of landmarks in their downtown. They interviewed an architect and an historian and produced a video tape that illustrated their hypothesis that one builder had exerted major influence on building styles over a 30 year period, even identifying his early and later periods of design. Geneological projects were less frequent but several students brought original efforts that linked their own family history and documents with events occurring in their communities and the country as a whole.

Social interaction for these students was a primary goal of the project and it seems to have achieved some measure of success. Major factors in this success seemed to be proximity of districts and early face to face contact. In a number of instances games, friendships, even youthful romances were supported by the bulletin board.

Two school districts had far and away the greatest usage of the bulletin board. These two districts incorporated their computer specialists as part of their project staff. These teachers were comfortable using computers provided assistance in the use of the equipment, and encourage their students to use the network frequently.

Discussion

Project RING set out to address several problems unique to gifted and talented students in rural settings. After three years, some major successes were noted, but several troublesome questions remained.

The clear implication of the project is that electronic communication does indeed offer a tool for the intellectual enrichment and social support of rural Gifted/Talented students. Students began using the system extensively as its reliability increased and its utility was demonstrated. This increase contradicts findings by others that as the novelty effects wear off high initial usage declines. Two factors appear important. The first is providing a purpose for usage of the network. Built into the project were mechanisms that called for exchange of information across sites. Also critical was the meeting of students in early stages of the project to allow formation of contacts across sites.

The concept of studying an umbrella unit across sites was a viable procedure for coordinating the disparate interests and abilities of gifted students in a common effort. It must be noted, however, that certain requirements should be met in order to maintain the viability of the unit approach.

1. The unit must include elements that allow students with different interests and abilities to participate. Both the environmental and heritage units were conceived to do this, though the former was defined by students as a science unit, and the latter as a history unit. Where numbers of gifted students are small to begin with, it is difficult to structure units aimed at particular, specific interests.
2. A mechanism for interaction must be built into the unit plan. Students do not tend to correspond about their projects without specific reasons for doing so. Interaction mechanisms in the heritage unit elicited greater numbers of exchanges of each kind.

It is also clear that the electronic linkage is only a tool for addressing the problems of the rural gifted. In and of itself, it is insufficient to carry the weight of the project. A teacher of the gifted must provide adequate access to the linkage, maintain a consistency in rationale for its academic use, and provide balanced demands for the process of inquiry and project outcomes. The difference in project sophistication and ratings across sites were probably due to factors relating to instruction not computer use.

In several instances, teachers engaged in practices that seemed to inhibit successful project completion.

1. *Technophobia.* Some teachers openly expressed distaste or fear of computers and the technology of computer exchange. In these instances students either mirrored this attitude or, if they themselves were technically oriented, devalued the teacher's abilities to direct them in the project. Teachers who, though just as technically naive, expressed enthusiasm for the project were much more successful in getting their students involved in computer usage.
2. *Inconsistency of Demands.* Some teachers were uncomfortable in directing independent inquiry. They often swung between totally unstructured, open ended, unspecified demands and rigid, highly structured assignments. Despite early inservice in contracting and developing facilitative skills, some teachers had difficulty achieving a progression toward student independent inquiry.

Perhaps the most disappointing feature of the project was the reluctance of teachers to use the board to augment

their resources and extend their network of colleagues. While some interschool contacts were made, the number and extent of those remained limited, e.g. a teacher from one district maintaining phone correspondence with one other teacher. Reluctance to make computer contact with other teachers may have stemmed from teachers' uncertainty about how their requests might be perceived. Would peers view their requests as a display of ignorance?

Reluctance to use the network may have been exacerbated by teachers' self-doubt about their technical adequacy. In the pilot study this problem was noted mainly in the hesitancy of teachers to allow open access by students to the hardware in the schools. Extensive effort was made in subsequent years to educate teachers about this difficulty and improvement was noted. It was, however, apparent that many teachers felt uncomfortable with the technology, and were reluctant to use it at all. In two cases the teacher appointed a student to oversee the computer and never touched it again.

The technology applied here was not expensive. Modems and bulletin board software for various machines have fallen steeply in price. The major cost item in operating these networks is now the cost of the telephone. The best results are obtained from operating a dedicated phone line with open access to peak hour long distance service. For some districts these costs may be prohibitive. Some solutions present themselves. It is possible to save transmission for off peak hours, using phones intended for business use during the school day. This does however remove the student one step from immediate contact with others and it necessitates someone who will upload and download messages at every site. Furthermore, the removal of direct student access from the network may lessen the excitement and socialization opportunities present in the technology.

Conclusions and Implications

It seems clear from the three year project that electronic linkages and a common unit approach can provide useful ways to supplement services to rural gifted students and expand socialization opportunities. In addition such devices could be used to expand information services, establish contact with mentors at distant sites, and expand awareness of other gifted students' unique interests and backgrounds.

The project linked rural students with each other and with a university setting. However, other linkages are just as feasible. Rural gifted students could have access to urban peers, even with students from other countries. Libraries, museums, laboratories and other public and private institutions, etc. could be brought into a network for rural students and their teachers. Although not a panacea for all of the problems that face rural educators, the creative use of computers will certainly reduce some of those problems. Networks could be built now that allow more direct interaction, even to the point of shared simulation and educational gaming across sites. What is clear, however is that the teacher is a critical variable in achieving the goals of such projects. Teachers need the training and support to use the technology, integrate resources, and facilitate the projects of gifted children. What we have found is that trained teachers with technology can begin to bridge geographic and academic isolation for the rural gifted.

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Using Telecommunications to Meet the Staff Development and Networking Needs of Educators of the Gifted in Small or Rural School Districts

Donna Rae Clasen
Robert E. Clasen

These are the facts of the problem facing Wisconsin's educational system.

1. Four hundred and thirty districts (two-thirds rural) across an area 160 miles wide and 330 miles long.

2. Fifty thousand educators, very few of whom have had course work in meeting the needs of the gifted.

3. A state law requiring that the gifted (intellectually, academically, creatively, artistically, and in leadership) be identified and served appropriately.

Problem finding resulted in the need to provide a mix of credit and noncredit learning opportunities at times and in places convenient to teachers. The solution is a blending of new technologies (computers and television) with older technologies (telephone and federal mail) in developing a statewide learning community.

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Instead of having to drive over icy roads at night to the nearest university, my time was better spent in research and practice of what we were learning in the local ETN centers.

— Sonette Salter
Elkhorn, Wisconsin

It's 5:30 p.m., and the voice in the control room announces, "This is the University of Wisconsin Educational Telephone System." Within seconds a class or workshop begins, and participants from both small and large communities around the state are linked together in an experience that allows them access to each other as well as to knowledge and instruction aimed at enhancing and nurturing their abilities as educators. This unique teaching/learning situation is possible due to approximately 200 ETN (Educational Telephone Network) sites throughout Wisconsin, each equipped with speakers and microphones which link instructor and class members in a statewide educational network. For most Wisconsin residents, an ETN site is less than 30 minutes away. Thus, technology removes many of the limitations for continuing education placed on teachers in those areas in which a university instructor is not readily accessible in person.

Staff development in small rural districts continues to be a severe problem. In general, rural districts are too small to have individuals assigned solely to staff development; their resources are too limited to purchase staff development expertise; the possibility of coalition with other districts is often complicated by school schedule or by distance; and their remoteness from centers of higher education means hours of travel, often on non-freeway roads, often at night, and most often at the teacher's own expense.

The problem of rural staff development in an area such as gifted education is often exacerbated by the need. The vast majority of in-place teachers have had no course work in gifted education; many have not attended workshops, conferences, or institutes dealing with the education of the gifted, and local efforts frequently lack follow-up and practical application. Most teachers have been exposed only to basic ideas in an inservice format, usually a speech.

In 1975 the University of Wisconsin System in cooperation with the Wisconsin Department of Public Instruction decided to do something about the situation. Since then, four educational television courses which help teachers meet the needs of gifted students have been developed and delivered by telecommunication systems to educators throughout the state. Both graduate and undergraduate credit for the courses are available through several universities in the University of Wisconsin System.

Development of Courses

The four educational television courses include: (a) Simple Gifts (introductory educational psychology of the gifted); (b) Programming for the Gifted (models and methods); (c) Teaching for Thinking (teaching for creative thinking); and (d) Teachers Tackle Thinking (teaching for critical thinking). The production teams for these courses have involved the authors and staff from several University of Wisconsin campuses, most notably those at Stevens Point (Dr. Robert Rossmiller) and Parkside (Dr. Beecham Robinson). Funding was provided by the University of Wisconsin-Extension, UW System Institutions, and the Department of Public Instruction.

Each series involves three components: twelve half-hour video tapes, a book of readings, and a study guide. Each component serves a different function. The video tape is holistic and shows recommended teaching strategies in action; the book of readings provides theoretical and research support for each recommendation; the study guide provides guided practice intended to move class members from the impressional level of the video tapes through the cognitive level of the book of readings, to the behavioral level of application.

The television production has two foci: the identification of national experts to discuss issues and instructional methods and the selection of teachers to demonstrate the instructional model or strategy under discussion. In all instances demonstration segments were taped within the regular school setting; taping captured part of the regular teaching routine of the demonstration teacher. Emphasis in the segments is on showing how instruction might be done, not telling teachers what to do. Thus, the video allows viewers to hear national experts such as Harry Passow, Sandra Kaplan, Dorothy Sisk or Joe Wayman discuss an educational practice and then to see application of a recommended practice in a classroom setting.

Once the course is completed, it is distributed to all institutions with a financial investment in its development. Subsequently, a complex delivery net is set in place so that every teacher in the state of Wisconsin has access to training on the education of the gifted regardless of how remote or rural the district. In addition, the tapes are marketed nationally, where they are purchased primarily by school districts and universities for similar instructional purposes.

The Delivery System

After some initial skepticism, I found the ETN delivery system to be excellent. In addition to the easy access to quality education, my ETN classes introduced me to a statewide network of colleagues and new friends.

— Dennis Brooks, Pewaukee

Usually the ETN classes in gifted education meet once a week for 16 weeks throughout the semester. One of 12 videos is shown each week on educational television channels in the state; students view them when they are aired or tape them for later viewing. For class sessions, students go to one of the ETN sites in the state, turn on their speakers and microphones, and technology connects them with the instructors and other students. The ETN time is used for discussion of the videos and readings, modeling of teaching strategies, and analysis of participants' personal application of strategies.

For many, the first reaction to taking a course via the telephone network with microphones and speakers as the link between teacher and student is pessimistic. The system is often viewed as unfriendly and cold. In fact, the first author originally agreed to teach via ETN only because she had just finished producing *Teaching for Thinking* and was committed to the course's dissemination throughout the state. However, the first class with approximately 100 students on the line convinced her that the teaching/learning transactions on ETN could be challenging and exhilarating and that the advantages of reaching a varied audience in communities around the state far outweigh the disadvantages, such as the lack of face-to-face contact. An ETN course is now part of her university teaching load each semester.

It should be noted that many participants come to the ETN experience not only somewhat uncertain about it, but even intimidated. It is the instructor's or the facilitator's task to mitigate that uncertainty and

to establish a psychologically safe environment for each individual as well as the collective group. Effective teaching strategies which work in the regular class setting will also work on ETN and, in fact, are especially powerful. For example, in an initial class students were asked to do a forced association: ETN is like... One of the first responses was that it was like a blind date. A student on the line said, "My hands are sweating; I feel rather tongue-tied and fearful of saying the wrong thing, and I haven't the slightest idea what my date looks like!" The forced association turned out to be a wonderful icebreaker, generating both cognitive and affective reactions to ETN.

Users of ETN find that effective teaching/learning transcends the medium. Whether in a regular classroom or on ETN, the teacher instructs, encourages and directs discussion and models the desired student behaviors. Students listen reflectively, respond to each other as well as to the instructor, question, practice techniques, and share concerns, ideas and suggestions. And in these moments, isolated rural teachers find themselves members of a statewide movement.

ETN course offerings are a major means of reaching educators of the gifted in small, rural or isolated school districts within Wisconsin; but, additionally, several options for using both the courses and the ETN system exist. Each of these is intended to help meet the continuing educational needs of educators in more rural areas as well as those in other districts who find the telecourses a convenient way to learn and interact with colleagues over issues of importance. The following three options regularly are available to meet educators' needs.

Option I: Credit Courses

The video tape portions of courses are broadcast courtesy of The Wisconsin Educational Communications Board on public television stations. These transmitters reach 97% of the homes in the state. Cable networks are also encouraged to pick up and rebroadcast the signals. Students have several choices for using the tapes:

1. Students enroll in an ETN university course, view the video tapes (off-air taping in Wisconsin is encouraged) and join a Telephone Discussion Group at a state ETN site. ETN outlets are located in county courthouses, colleges and universities, hospitals, schools and in many public libraries. All outlets are two-way interactive, equipped with speakers and microphones. A lead campus is primarily responsible for providing instruction, but as many as three campuses often work together to provide instruction and credit.
2. Students who cannot avail themselves of a course and the weekly discussion groups can obtain credit using Independent (Correspondence) Study. Independent study requires students to view the tapes, read the print materials, and write answers to a series of questions for each unit. Invariably, the assignments require trying some teaching/learning transaction and reporting on it, as well as responding to thought provoking questions and ideas.
3. Students may engage in credit courses based on the course materials taught on campuses from any of Wisconsin's teacher training institutions. In some instances, campuses appoint adjunct faculty to deliver these courses to school districts.

Option II: Non-Credit Courses

Each year State Superintendent, Herbert J. Grover, alerts district administrators to the availability of telecourse materials for local inservice programs. Local inservice work can be legitimized in several ways:

1. Advancement on the local salary schedule for hours of effort associated with telecourses.
2. Awarding of state clock hours upon approval by the state superintendent. (One hundred-eighty clock hours are required each five years for license renewal.) Clock-hour bearing programs can be run by districts, associations, and regional service agencies as well as college and universities.
3. Meeting inservice requirements negotiated into local contracts.

Option III: Networking

Staff development is not limited to course work. The telecommunications system also is used to bring together colleagues from around the state as well as around the nation or world. The intent is to create a support network:

1. To augment the delivery of training for credit and salary advancement, Wisconsin is also concerned about networking personnel in its 431 districts scattered in a state 350 miles long and 160 miles wide. Therefore, the Wisconsin Idea uses the telephone to hold meetings, to offer non-credit courses separate from television tapes, and to bring people together for a special session or conference. The telephone network has the flexibility of linking with any telephone in the world, and this has allowed Wisconsin to bring experts such as Frances Karnes and Joe Renzulli to the state while neither was anywhere near Wisconsin. All participants in these discussions can hear and interact with the guest speaker and each other. Usually, the interaction is facilitated by one of the authors.
2. Currently, a computerized bulletin board is being added to the communications mix making a wide variety of information readily accessible. By using computers and modems, teachers (and students) can obtain information from the electronic bulletin board maintained by the Instructional Media Development Center at UW-Madison. Three indices relevant to gifted education are currently in process: (a) a calendar of interest for the year (operational); (b) a list of individuals who can be contacted to provide training and inservice (operational); and (c) an index of print resources such as district gifted plans, model curricula, thought papers, and other relevant materials. This index provides an abstract of each document. If people are interested in the materials upon reading the abstract on their own computer screen, hard copies of these materials can be purchased for the cost of reproduction and mailing (in process).

Teachers of the gifted often feel alone. This can be especially true for educators in rural, small or more isolated districts. ETN helps mitigate the isolation. It offers opportunities to learn with colleagues, to develop collegial relationships and to forge new friendships. It helps develop a statewide network of educators with common understandings of the gifted and talented and their special needs. ETN educators have found that although problems and issues in a rural community will differ from those in a metropolitan area, many of the critical concerns regarding identification, programming and counseling of the gifted are shared by all. And finally, the system offers a means for statewide planning, coordination, and increased school/community linkages. Above all, the telecommunication system provides equal opportunities for participation for educators from all districts, regardless of size or location. The resulting diversity enriches everyone.

Evaluation

Evaluation of correspondence study courses includes objective examinations and the assessment of work samples

completed on a take-home basis. Telephone courses require students to submit work samples, lesson plans and their reactions to the actual implementation of their plans in the classroom.

More to the point, perhaps, are some comments by students:

Renee Triulzi (Whitewater/Television - ETN)

In all the years I've gone to college, and I'm twenty-one credits past the master's degree, this is one of only three classes in which I've been totally involved and felt psychologically connected with the instructor and with the other class members.

Mary Bernien (Reedsburg/Television - ETN)

...I found the ETN class both interesting and beneficial. We, too, are struggling to find a way to meet the mandates — this gave us some ideas to approach the task.

Walter Coyle (DePere/Television - Individualized)

...I now think twice whenever I return a piece of work to one of my students. I want to be sure that I have responded as fully to a student as I [now] know students like to be responded to.

Course Information

The telecourses are distributed nationally.

Simple Gifts
Teachers Tackle Thinking
Great Plains National Television Library
Box 80669
Lincoln, Nebraska 68501
800-228-4630

Programming for the Gifted
Public Broadcasting Service
1320 Braddock Place
Alexandria, VA 22314
703-739-5086

Teaching for Thinking
Agency for Instructional Technology
Box A
Bloomington, Indiana 47402
812-339-2203

Print materials for all courses are available from Madison Education Extension Programs, 157 Education Bldg., The University of Wisconsin, Madison, Wisconsin 53706. Attn: Kathleen Schuster. (Phone: 608-263-5140).

Persons interested in the technology should contact: Marcia Baird, Director, Instructional Communication Systems, University of Wisconsin Extension, Radio Hall, Madison, Wisconsin, 53706.

The Progress of Gifted Students in a Rural District that Emphasized Acceleration Strategies

Aimee Howley

Rural school districts can make acceleration programs successful if they follow certain guidelines. This article documents one district's experiences with the use of various acceleration strategies in different elementary schools. Although each school tailored its program to its own needs, almost all of the programs were equally effective. Their success may be attributed to four characteristics: (a) planning for each student focused on individual needs, (b) instructional materials closely approximated students' instructional levels, (c) teachers of the gifted monitored students' progress on a routine basis, and (d) the district required that program evaluation be conducted.

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For a number of reasons rural schools may have difficulty in establishing and maintaining coherent programs for gifted students. There may be too few students in certain rural schools to warrant the establishment of special classrooms for the gifted; and because they are often poorly funded, rural schools can ill afford options — like pull-out enrichment programs — that have proven to be costly and ineffective (see e.g., Gallagher, Weiss, Oglesby, & Thomas, 1982; Cox, Daniel, & Boston, 1985).

Acceleration is a mechanism by which schools, including less affluent rural schools, can provide gifted students with instruction that more closely approximates their abilities and achievement levels. After conducting a meta-analysis on the effects of acceleration, Kulik and Kulik (1984) conclude that acceleration significantly enhances the achievement of gifted students. According to these researchers, accelerated gifted students have "grade-equivalent scores [that are] nearly a full grade higher than the scores of bright, nonaccelerated students of the same age" (Kulik & Kulik, 1984, p. 417).

Although the research evidence is positive, few school districts implement programs that encourage the majority of gifted students to accelerate their progress through the curriculum (Cox et al., 1985). The reasons for neglecting this option are varied. Among those most frequently cited are the following: (a) concern that students' emotional development will suffer; (b) belief that acceleration will disrupt the orderly sequence of curriculum delivery; (c) fear that large numbers of parents will request that their children be accelerated; and (d) concern that acceleration will cause insurmountable scheduling problems.

These concerns are not unfounded; many teachers and school administrators have had experiences that make them doubt the wisdom of acceleration. Nevertheless, upon review, their experiences almost always turn out to involve isolated cases of students who were accelerated without the support of an officially sanctioned acceleration program.

Such a program, however, can greatly improve the chances that acceleration will work. To accomplish this goal, the program should provide systematic procedures by which administrators, teachers, parents, and students can plan for the acceleration, implement it, and monitor its success. The program should also make available other

options that can be used in the comparatively uncommon event that the acceleration strategy selected for a particular student does not work well.

The Jackson County Experience

Jackson County is a rural county in west-central West Virginia. It is neither the wealthiest county in the state, nor the poorest. For a number of reasons, the county has a relatively stable school system:

1. It has an industrial tax base that assures adequate, though by no means lavish, funding for education.
2. Its proximity to moderate sized metropolitan areas has insulated it.
3. Its distance from these same metropolitan areas has protected it from dramatic population influxes.
4. Its board of education concerns itself primarily with policy matters and, consequently, limits its involvement with the routine administration of schools.
5. Its central office staff is comprised primarily of local people, many of whom were raised in the county.

The county has had some sort of a program for gifted students for the past 11 years. In the early stages of the program there was one itinerant teacher who attempted to serve all of the gifted students in the county's 15 schools. This teacher began by making classroom teachers and administrators aware of the needs of gifted students. As awareness grew, more students were identified. Eleven years later, the county has 12 teachers of the gifted who serve a total of 260 gifted students.

Other changes in the program have also taken place. Most notable is the change in the program's focus. Whereas the program originally emphasized enrichment activities, in recent years it has come more and more to emphasize academics. This emphasis has led administrators to explore various options that enable students to accelerate through the curriculum.

The first types of options that were arranged were at the middle and high schools. Honors and Advanced Placement classes were set up in science, English, social studies, and mathematics. Gifted students were encouraged to enroll in these classes; and they were permitted to proceed through the sequence at whatever pace they could handle. Some graduated from high school early; and others enrolled in college classes while they were still in high school. Unfortunately, not all of the gifted students in the county were encouraged to take full advantage of the program.

Changes in the elementary gifted program took longer to implement. Elementary teachers were reluctant to allow the teachers of the gifted to take over responsibility for academic instruction; and they were right. Many teachers of the gifted were unprepared for such a responsibility. Because of the statewide shortage of teachers of the gifted, Jackson County, like many others, had been forced to fill vacancies with teachers who had only minimal training.

By the 1987-88 school year, however, school administrators were ready to look for alternatives to the enrichment program. Increasing numbers of parents were expressing their dissatisfaction with the program; and several key administrators found the program to be wasteful and elitist.

In order to change the program, administrators had to solve a number of problems. First, was the problem of parity. Schools were of unequal size; and each had a different number of gifted students. In addition the elementary schools varied in the grade levels that they served: two of them served students in grades K-8; four served students in grades K-5; one served students in grades K-2; and one served students in grades 3-5.

Second, was the problem of individualization. Everyone recognized that different gifted children would have different needs. Some might benefit from skipping an entire year of instruction; others might need to receive advanced instruction in just one subject area; and still others might require radically accelerated instruction. To set up only one mechanism for acceleration would not work for all students.

Finally, there was the problem of resistance. Although many parents, teachers, and administrators wanted to see a change take place, others did not. Some would have been pleased to see the county abandon the gifted program altogether.

Given these problems, it seemed unlikely that any uniform acceleration program would work. Therefore, county office administrators decided to let each principal work out an acceleration program that suited the needs of the students in his or her school. The programs that resulted from this school-based planning varied somewhat. In some schools, students were permitted to skip grades. In others, this practice was discouraged. Some principals arranged class schedules to accommodate cross-grade grouping; others set up a schedule that allowed the teacher of the gifted to deliver advanced instruction.

In spite of these differences, all of the programs had some common features. Four of these features seemed especially relevant to the success of the school-based programs:

1. Planning for each student focused on his or her individual needs. This planning took place at an Individualized Education Program (IEP) meeting that was attended by the principal, the classroom teacher, the teacher of the gifted, and the parents.
2. Instruction of students in basic skills (reading, mathematics, spelling, and English) involved the use of materials that closely approximated the students' instructional level in each subject.
3. Routine monitoring of students' progress was conducted by the teacher of the gifted that served each school.
4. Students' progress was documented through pretesting and posttesting with the Woodcock-Johnson Psychoeducational Battery: Tests of Achievement.

Results of the Program Evaluation

In spite of the fact that each school used different methods to provide accelerated instruction to gifted students, the students achieved remarkably similar gain scores county-wide. On average, their gain in reading on the Woodcock-Johnson was about 1.8 years. In math it was about 1.9 years; and in written language, 2.0 years.

Not only was it important to measure the average gains made by the elementary gifted students county-wide, it was also important to measure the degree to which achievement in each program was consistent with achievement in the other elementary programs. This was accomplished by comparing the gain scores obtained by each program with aggregated gain scores from all the other programs. If, using a two-tailed t-test, the differences were found to be insignificant, then it would be possible to conclude that the programs were about equally successful in fostering academic achievement among gifted students.

To conduct this comparison, it made sense to consider as one group all of the students served by one teacher of the gifted. With the exception of one teacher who served three small schools, each other teacher served just one school.

All of the teachers administered the Woodcock-Johnson Psychoeducational

Battery: Tests of Achievement to each student in his or her caseload as a pre-test in September and October of 1987; they all administered the same test as a post-test in May and June of 1988. Because of an unusually large caseload, one of the teachers did not have time to administer the written language portion of the Woodcock-Johnson as a pre-test to her students. These students' gains in written language could not, therefore, be compared with those of students in the other programs.

The results of the comparison were encouraging. In only two instances did one program's gain scores differ significantly from the aggregated gain scores of the other programs. (For a more detailed analysis, see Table 1.)

Both of the significant differences related to mathematics gains. In one instance, a program's gains exceeded those of other programs by a significant margin; in another instance, a program's gains failed to equal those of other programs. In the first instance, the teacher, though assigned to an elementary program, had received training as a high school business teacher. Her background in mathematics was more extensive than that of any of the other elementary teachers of the gifted. In the other instance, the teacher opposed acceleration and had only reluctantly allowed students to progress rapidly through advanced materials.

Conclusions

This program evaluation showed that, in one school district, different approaches to acceleration were equally effective in producing achievement gains among elementary gifted students. Such a conclusion is particularly relevant to school administrators in rural districts who are using or planning to use acceleration strategies to deliver academic instruction to gifted students. In rural districts, schools may differ considerably in size; they may not have similar resources available to them; and they may have a varying number of gifted students identified. Given this reality, it is unlikely that rural districts could develop one type of acceleration program that would meet the needs of all the district's schools.

Administrators should, therefore, find it encouraging to know that they can expect similar achievement gains among the acceleration programs established at different schools, even when these programs differ considerably. In order to achieve similar results, however, such programs should adopt some common guidelines. Of these, the most important is the requirement that each gifted student receive instruction in basic skill subjects at levels that closely approximate his or her instructional levels in these subjects.

Table 1
T-Test Statistics

Note: Positive differences indicate that the group's scores were higher than the individual teacher's scores. Negative differences indicate that the individual teacher's scores were higher than the group's scores.

* = significant differences

Teacher	Subtest	Difference (Group - Teacher)	Degrees of Freedom	Significance Level (2-tailed test)
#1	Reading	-0.0462	98	0.8639
#1	Math	-0.1122	97	0.6998
#2	Reading	-0.1511	98	0.6712
#2	Math	-0.0111	97	0.9767
#2	Wr. Lang.	0.2320	58	0.6248
#3	Reading	-0.1788	98	0.5501
#3	Math	-0.1311	97	0.6809
#3	Wr. Lang.	-0.5911	58	0.1009
#4	Reading	-0.3573	98	0.5584
#4	Math	-0.0682	97	0.9165
#4	Wr. Lang.	0.4821	58	0.4772
#5	Reading	-0.0545	98	0.8709
#5	Math	-0.8098	97	0.0215 *
#5	Wr. Lang.	-0.1933	58	0.6212
#6	Reading	0.4549	98	0.1195
#6	Math	0.6498	97	0.0359 *
#6	Wr. Lang.	0.6162	58	0.1305

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Locus of Control and Rural-Urban Status in Gifted High School Students

Kelly A. Morrow

The study investigated differences between rural and urban gifted high school students on two measures of locus of control (LOC), the Intellectual Achievement Responsibility Questionnaire (IAR) and the Children's Nowicki-Strickland Internal-External control scale (CNSIE). Results indicated that rural gifted students tend to claim more responsibility for negative events in the academic domain (e.g., lower grade than was expected) than urban gifted students. Implications of the results are noted.

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The special needs of gifted students from rural communities have received limited attention in the past (Carmichael, 1982). The current study investigated the differences between gifted students from rural communities and those from urban areas on measures of locus of control (LOC). Seventy-five students from 26 high schools were selected by their teachers to attend the University of Nebraska-Lincoln Guidance Laboratory for Gifted and Talented. Two LOC instruments, the Children's Nowicki-Strickland Internal-External Control Scale (CNSIE) (Nowicki-Strickland, 1973) and the Intellectual Achievement Responsibility Questionnaire (IAR) short-form (Crandall, 1978), were self-administered by the students, 95% of whom were eleventh graders. The CNSIE is a general LOC scale, whereas the IAR measures academic LOC.

No significant differences were found between males and females on any measure, nor was there an interaction between gender, rural-urban status, and LOC.

Nowicki and Strickland (1973) and Duke and Nowicki (1974) proposed that female LOC is likely to be influenced by the roles which are approved by the particular culture. This would especially be true in academic settings. Changes in the American culture may make it more acceptable for females to claim responsibility for academic and career successes. This change would probably have an effect on female LOC scores.

There exists a lack of research which has investigated the interaction between gender and rural-urban status. Although both seem to be related to LOC, and interaction of these variables may not exist. Richardson (1980) was supported by the present study when considering the I- (negatively valenced) subscale. Rural students scored significantly more internal than urban students on this subscale but no significant differences in LOC scores were found on the other measures. The previous study considered a population of 2,500 or above as urban, while the current study used 5,000. The former study also had a larger sample and used Rotter's Internal-External locus of control scale (Rotter, 1966). These variables could have influenced results.

It is interesting that the rural gifted students scored more internal than urban students on the negatively-valenced items, while no other significant differences were found. It is generally easier to claim responsibility for events with positive outcomes than undesirable outcomes (Crandall, 1978). The results indicated that urban and rural gifted students are equally willing to claim responsibility for desirable events, but those from rural areas are more inclined to accept responsibility for failures than those from urban areas.

Students from rural Nebraska are children whose parents are either farmers, ranchers, or people whose income is largely dependent upon the success of agriculture. Farmers and their families tend to be very independent, a trait associated with internal LOC (Richardson, 1980). They claim responsibility for their successes as well as their losses, even though profit is dependent upon unreliable and uncontrollable factors such as weather and market prices.

Lawson (1977) indicates that the parents are the most significant source of influence on children's LOC orientation. It follows that the rural students would resemble their parents and score highly internal on the I- subscale. Gifted rural students' self-esteem and potential to achieve may suffer the detrimental effects of an unrealistic internal LOC orientation. Increased awareness and intervention concerning this aspect of gifted students' personality is needed if teachers and counselors are to help the students to reach their potential and to cope with the ever-present stresses in their lives.

Stipek and Weisz (1981) proposed that the probability of learning from mistakes is reduced when students do not claim responsibility for the outcome. Based on the results of this study, urban students appear less likely than rural students to be influenced by negative feedback in school (e.g., teacher evaluations) and to then alter their future behavior in attempts to avoid the recurrence of the undesired outcome. The urban student's apparent tendency to assign responsibility of negative outcomes to external sources may have a negative impact on his or her motivation (Renzulli & Smith, 1980) and levels of achievement and self-esteem (e.g., Stipek & Weisz, 1981). Further research is needed to determine if the LOC difference is manifested in the students' behavior and performance (Zaffran, 1983).

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ANNOUNCEMENTS

5th Annual Midwest Institute for Gifted Studies
July 11-13, 1989
College of St. Thomas
St. Paul, Minnesota

Contact:
Stana Mack,
Conference Coordinator
or
Karen Rogers,
Institute Director
612-647-5277, ext. 5338

Featured Presentations:
Irving Sato,
NSLTI, California
Carolyn Callahan,
University of Virginia
Robert Sternberg,
Yale University

ERIC DIGEST

SMALL SCHOOLS

TEACHING K-6 SCIENCE IN SMALL SCHOOLS ON A FINANCIAL SHOESTRING

Teaching elementary science is not easy, especially in a small school. Elementary teachers in general and rural elementary teachers in particular are asked to teach science when typically they have not been adequately prepared in at least three critical areas: fundamental science knowledge; meaningful preparation in *actually* teaching science; and instruction as to buying and using pertinent course materials. Further problems for elementary science teachers in small schools occur with respect to inadequate amounts of time, lack of money and library reference materials, too narrow science curriculum guides, and limited district support facilities and personnel. While tackling *all* of these problems is beyond the scope of this digest, suggestions are made that should improve science teaching by overcoming some of the problems identified and by addressing science teaching directly. The digest also details additional ways for small schools to upgrade their programs and teachers their pedagogy.

How and where can one secure science materials from free and inexpensive sources?

One way for K-6 teachers in small schools to overcome some of the difficulties in teaching elementary science is to involve children and parents in obtaining free and inexpensive science-related materials. Materials should be sought during the entire year, and can be secured from visits to city institutions (museums, libraries); federal, state, and county offices like the U.S. Forest Service and the Soil Conservation Service; and from vacations to national and state parks. Materials can also be obtained from colleges and universities and public interest groups like the Audubon Society, National Wildlife Federation, and regional plant societies. It should be recognized, however, that special interest groups usually have particular points of view and that materials should represent a balance of outlooks. Several inexpensive children's magazines are especially useful in elementary science: ***Ranger Rick***, ***Zoobooks***, and ***3-2-1 Contact***. Magazine donations from school families can be solicited and can include an array of titles, including ***National Geographic***, ***Discover***, ***Science 86***, ***Scientific American***, ***Audubon***, and ***National Wildlife***. Moreover, three adult publications are specifically geared to teaching elementary science on a shoestring: ***Science and Children*** (each issue has a list of free and inexpensive science materials); ***TOPS***, and ***Educator's Guide to Free Science Materials***. ***Freebies*** magazine is more general, but does provide sources for science materials. Teachers, students, and parents need to be constantly alert for free and easily accessible materials and literature.

How can the materials be easily organized?

Free and inexpensive materials need to be arranged in a logical manner in order to be effective and useful. One such arrangement consists of six major categories: Biology, Chemistry, Earth Science, Astronomy, Physics, and Research Processes. While all six categories will have divisions and subdivisions, Biology frequently acquires more materials and hence requires more divisions. Three possible biological divisions include animals, humans, and plants. These can be further divided—animals into birds, mammals, reptiles, etc. Legal-size manila file folders should house the free and inexpensive printed materials gathered for each division encompassing the science spectrum. Additional folders can be added as new divisions and subdivisions occur. Nonprint materials should likewise be systematically referenced in file folders and placed in boxes. The cataloging and systematizing processes themselves can provide a scientific framework for the students who, of necessity, should play a major role in sorting, arranging, and filing.

How can teaching modules be developed?

Manila folders containing free and inexpensive science materials form the information base for converting raw data into meaningful and useful teaching guides and modules. In order for the folders to become a module, these components need to be completed for each folder.

- The accumulated materials should be listed, including the nonprint materials filed elsewhere.
- How each module integrates with all other modules (e.g., birds with insects) and with other school subjects (e.g., flowers with art) should be specified.
- Equipment necessary to more fully study the module (e.g., a microscope) should be listed, along with where to get it.
- There should be a list of local places to visit, local resource people to contact, and famous personalities associated with the module (e.g., Marie Curie and the atomic energy module).
- Related reference books should be listed with page numbers cited and physical location noted (e.g., the library).
- A set of lesson plans and activities of ever-increasing difficulty should be included for each module.
- A variety of tests should be included.

Such an ambitious project should not be viewed as something to accomplish in a single year. It might even be coordinated across different grade levels. Each module should never be considered complete; new materials and ideas can be constantly added and unworkable ones phased out gradually or altogether deleted.

How are the modules used to teach science?

The actual construction of the modules is a teaching and learning experience for teachers and students alike. Modules can be initiated and used immediately from the first free or inexpensive item received and, if successful, can only prove more rewarding with time. As more students and teachers become involved, the more complete the modules will become. Lesson plans begin to accumulate, posters increase in number, and integration with other subjects becomes more apparent. Invariably, this science program is user-friendly because it is constructed by the very individuals who will implement it and who have a practical and theoretical interest in its successes and failures. As new teachers come into the district, they can take up the construction at whatever phase they find it, without having to initiate their own program from scratch.

If the school uses a science text, curriculum guide, or learning kit, it can be supplemented by the modules, permitting a more functional, eclectic, and improved science program. Students learn much more readily when they become involved in developing their own lessons or when two approaches are synthesized into one coherent program.

Since teachers are ultimately responsible for constructing the modules, they must accept the responsibility for devising lessons that correlate with various ability levels and learning styles of their students.

Are there additional ways to improve K-6 science in small schools?

While module building and teaching science from free and inexpensive materials is one way to explore elementary science in small schools, there are several other ways to improve or upgrade existing programs:

- by videotaping television science programs—e.g., OWL/TV, *3-2-1 Contact*, National Geographic specials—and complying with all copyright regulations;

— by requesting universities to offer science methods courses specifically for small-school teachers;
— by contacting interactive computer networks that specialize in science teaching (in New Mexico, for example, one source is Mr. Jack Gittinger, Co-director, CISCO-Net Project, Department of Science Education, College of Education, University of New Mexico, Albuquerque, New Mexico 87131);
— by using the ERIC system to find materials on telecommunication satellite systems that would transmit science news, programs, and career information to schools, and which might provide answers to questions submitted by teachers —a great service to teachers in isolated small schools.

What are the overall contributions of teacher/student-made modules?

Teaching K-6 science in small schools through teacher/student-made modules from free and inexpensive materials is not a cure-all for all of the difficulties of teaching science in small school. Rather, it is a means of providing teachers in small schools with a direct and accessible way to improve their science teaching and to build enthusiasm among students for the many aspects of science.

FOR MORE INFORMATION

Periodicals

Educators' Guide to Free Science Materials. Educators Progress Service, Inc., 214 Center Street, Randolph, Wis. 53956. ($24/yr.)

Freebies. P.O. Box 20283, Santa Barbara, Calif. 93120. ($6.97/yr.)

Ranger Rick. National Wildlife Federation, 8925 Leesburg Pike, Vienna, Va. 22180. ($12/yr.)

Science and Children. National Science Teachers Association (Membership Dept.), 1742 Connecticut Avenue, NW, Washington, D.C. 20009. ($32/yr., 8 issues)

3-2-1 Contact. P.O. Box 2933, Boulder, Colo. 80322. ($10.95/yr.)

TOPS. 10978 S. Mulino Road, Canby, Oreg. 97013. **(Free)**

Zoobooks. Wildlife Education, Ltd., 930 West Washington Street, San Diego, Calif. 92103. ($14/yr., 10 issues)

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SECTION 8

FACILITY DECISIONS

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Seven factors you'd better not forget when changing attendance boundaries

By Timothy F. Hyland

REDISTRICTING—altering school attendance boundaries—was a common chore for school officials in the 1950s and 1960s, when those famous babies were booming through our schools. And school boards were in the thick of it, facing irate parents, debating each wiggle of each attendance boundary, juggling programs and teachers to ensure they were fairly reapportioned.

Today, the rush of enrollment growth has slowed or stopped, except in areas experiencing a "boomlet" of children of baby boomers. But as school systems across the U.S. are discovering, the need to redistrict continues during lean enrollment years, too.

Enrollment often ebbs and flows for purely local reasons: A new subdivision brings young families to an underdeveloped neighborhood, while in an older neighborhood across town, most of the youngsters are graduating from high school. With changing populations, program needs change. And one day the superintendent announces at a board meeting, "Soon we're going to have to think about redistricting."

Seven factors

Few things are as potentially disruptive in a community as redrawing school attendance boundaries; in fact, it's one of the most sensitive tasks a school board can face. Of course, you'll want to consider your redistricting plan carefully. But where do you start? My advice is to begin with serious consideration of the following seven factors:

1. *Life span.* A backward glance at your enrollment patterns should convince you that school enrollments and program needs change inexorably over time. For this reason, no redistricting solution is likely to be permanent. The new attendance boundaries, no matter how well planned and precise, will have a limited life span. Be candid about the temporary nature of your plan—which probably shouldn't be expected to last more than five or six years. During the life of the plan, you should continue to monitor changes in enrollment and space requirements so you'll be prepared for the next redistricting.

2. *Effective date.* Although the need for redistricting might seem urgent, the best timing for your plan can be a complex question. Don't assume the plan automatically must go into effect with the next school year. Rather, ask yourself the following questions:

- Will there be enough time to make the necessary changes to school buildings? Your plan might entail adding or moving laboratories, computer rooms, or other specialized areas that can't simply be boxed and moved by truck. You also might need to adapt the facilities—such as the height of drinking fountains and toilets—for younger or older students.
- Can your transportation department reshuffle the bus schedules in time? Your new plan might require many more buses or greatly altered routes.
- Will you make allowances for siblings? If an older brother or sister already attends one school, will you let the younger sibling attend, even though it violates the plan?
- Will you implement the plan for all grades simultaneously? For example, if you implement your plan with the freshman class of the high school, it will take four years to reach optimum efficiency. The alternative, of course, is to uproot high school students who already have matriculated, made new friends, and begun to identify with the school they're currently attending.
- Must you rush? Will a year of planning and preparation assure a smooth transition—or simply prolong the inevitable and irritate those affected for 12 more months?

3. *Racial balance.* A poorly drawn plan might worsen racial and ethnic inequities among students; a good plan could ameliorate inequities. Few parents want their children bused to the other side of town to implement racial integration unless tangible educational benefits also result. In many cities, most minorities live in the same one or two sections of town. And plans that integrate those students throughout the community usually place the burden of travel inequitably on the people the plans were designed to benefit.

Problems of racial or ethnic inequity are best addressed through community participation. Every group that will be affected by the redistricting should be asked for suggestions. But it's easier to intend community participation than to achieve it. Public hearings play an important role in the development of your plan, but disadvantaged citizens typically are less likely to attend such meetings than are the affluent. Other avenues must be explored to draw suggestions and support from your minority communities. Groups such as the National Urban League, the National Association for the Advancement of Colored

Few things are as potentially disruptive in a community as redrawing school district attendance boundaries; in fact, it's one of the most sensitive tasks a school board faces

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People, the National Council of La Raza, and their local affiliates can be valuable resources, too.

4. *Resource equity*. Sometimes school boards turn to redistricting to give each student equal access to the services of the school system. When some schools are crowded and others aren't full, children in the crowded schools aren't getting their fair share of resources. Redistricting can try to adjust these inequities by balancing enrollments among schools.

But terms such as "balanced," "comfortable," and "crowded" don't lend themselves to precise definition. Crowded in one school system might be comfortable in another. Balance probably doesn't mean giving schools precisely equal enrollments. Plans that focus on comparable class size are more common—and probably more equitable. Yet when some schools have classrooms that are physically smaller than classrooms in other schools, the task becomes more complicated. One approach is to fill each school to a similar percentage of its capacity, on the presumption that, no matter what their capacities, schools should be "comfortable" to the same degree.

Whatever your solution to the resource equity issue, your efforts will help reassure parents and students that they are treated fairly and valued equally as citizens and pupils.

5. *Program impact*. Over time, many school systems have added space-hungry programs and services that eat up former classroom space. Any redistricting plan needs to reexamine the recent history of how your instructional space has been used. You might want to leave the computer laboratory untouched, for example, but a former classroom that has become a second teacher's lounge or a king-sized principal's office should be reconsidered carefully in light of future needs.

6. *Public impact*. Your redistricting plan might reassign large numbers of students to new or different schools. If so, you would be wise to announce from the beginning your intent to give students more equitable access to resources while disrupting as few students as possible. Any board member who has taken part in redistricting knows that nothing packs an auditorium full of hostile parents more quickly than massive student shifts. Reassigning large numbers of students might be unavoidable, but the rule of thumb is to keep the public impact to a minimum.

Announcing your good intentions will help reassure the community that your plan will be rational and fair. (Of course, you also might attract candidates for the next school board election. No one said politics was easy.)

7. *Financial impact*. Given unlimited resources, any board could fashion a successful redistricting plan. New schools could be built, new wings added, old buildings renovated, teachers and other staff members hired, buses purchased, drivers contracted, and new desks and equipment installed. But few of us have the luxury of drafting a redistricting plan without weighing its financial impact.

Costs of redistricting should be broken down into expenses that occur only once and those that will recur year after year. Buying two dozen new computers for a new computer lab is a one-time expense. But hiring a teacher to staff the lab, plus contracting for repair and maintainance, will affect the budget this year and each succeeding year. You need to assess the one-time costs and the recurring costs to determine the plan's full financial impact.

Your financial analysis also should address the issue of which school funds would be affected. Most states mandate that certain funds can't be commingled. For example, transportation dollars usually can't go to pay teachers or build buildings. In most school systems, some of these funds are in better health than others, which means you might be able to afford buses but not drivers, or build buildings but not staff them—all of which your plan must take into account.

Finally, your plan might require that you go to the voters for a referendum—especially if the redistricting will require some new buildings. Even if you are confident of the voters' support, you might not be able to place the matter on the ballot for many months, and that could delay implementation of the plan.

A process

After weighing these seven factors, your next step is to set up a process for developing your redistricting plan. Because of the potential for disruption and opposition from the community, it's virtually impossible to have too much community involvement in the process. Many school systems hold public hearings to discuss whether redistricting is needed at all—let alone what form it should take. Giving people opportunity for constructive criticism accomplishes two ends: You demonstrate that the school board truly is a grass-roots body, and you hear some good ideas.

An early agenda item is to decide who will do the study and draft the initial recommendations. Although the board has final responsibility, board members rarely have both the time and the inclination to do the groundwork. Many school systems give that task to the central office, which has the basic data for a well-designed plan—demographic data, building permit information, school building capacities, and transportation routes.

Occasionally, school boards hire consultants to conduct the initial study. The advantage of this approach is that a reputable, impartial team of "experts" takes the initial flak. Two caveats to using outside consultants: First, they aren't cheap. Consultants skilled in redistricting will cost tens of thousands, even hundreds of thousands of dollars, depending on the size of the school system. Taxpayers legitimately question the use of high-priced consultants when an administrative team is on the payroll.

Second, unless the consultants spend a substantial amount of time learning about your district, their plan will be based simply on statistics and might fail to consider the broader climate and history of the community and the schools.

To have the benefit of outside advice and still give the public opportunities to make suggestions, some school systems create a hybrid committee—a broad-based community advisory group that has the sole purpose of creating a redistricting plan. If you create such a committee, you'll be able to involve representatives of many community groups in the process. But be sure to specify the committee's role and responsibilities carefully. Make sure the committee knows that it's only an adviser to the board. Otherwise, if its recommendations are altered or rejected, the committee might rebel. After you have defined the committee's task, guide its efforts by setting forth several criteria for a desirable plan. If necessary, appoint a board member to the committee as a liaison to the board.

Before you embark on the task of redistricting, make sure you have decided what a successful plan will look like. If you sketch out the characteristics you want in advance, you will be able to nudge others in the right direction—and recognize a successful plan when you see it. Community participation is essential, but in the end you, the elected board members, must decide whether to adopt a redistricting plan. □

How do you rate this article? Please turn to the reply card facing page 42 and circle 187 if you think it's excellent, 188 if you think it's good, and 189 if you think it's poor. Thanks.

Build a Capital Plan for Construction

Reprinted with permission from The School Administrator, March 1990, American Association of School Administrators.

BY RON SCHAPPAUGH
President, 3DI Inc., Alexandria, Va.

Imagine this scenario: Your long-awaited bond issue for capital improvements receives voter approval and money is finally available to build the new schools your district needs and to renovate the old ones.

You start to breathe a sigh of relief. But the day after the vote, the news media demands to know exactly when the first shovel of dirt will be turned and the first paint will be slathered on a cafeteria wall.

Many superintendents who find themselves in this situation are inclined to react hastily. They feel pressured to do something immediately to show that action has been taken and the building program is under way.

Thrust into the spotlight, they find themselves hiring architects and contractors without careful analysis and giving orders for construction to begin without knowing exactly where to start.

If you expect your bond issue to pass, then you should start planning for capital improvements long before the votes are counted. Your advance legwork also may help sway voters by giving them a precise idea of what they are voting for.

The first step is to define the scope of construction or renovation to be done. This involves answering, in detail, several questions.

These include: How much renovation will be done? What will be done at each school? How much will improvements cost? Where are new schools needed and how much will they cost?

Most school districts will conduct this preliminary analysis—or hire an outside consulting firm to do it—as part of deciding how much money must be requested from the community.

Create Timetables

But this is only the beginning of what needs to be done before the vote. Other equally important steps include:

- *Establish priorities for the construction program.*
- *Create a timetable and schedule.* Which schools will be renovated or built first and which later? How long will each program take?
- *Decide whether the district will use staff or hire a project management consulting firm to oversee the program.*

Perhaps the best solution is to establish a small internal department of senior people with a project management firm acting as an extension of your in-house staff.

Bear in mind that it is sometimes difficult to hire quickly an entire department to manage a large capital improvement project, because the best people may not want to work where they will be needed for only four or five years. It's also difficult to reduce staff when the job is done.

An outside project management firm also provides the necessary experts at each phase of the project for only the time they are actually needed. For example, if an acoustical expert is needed for only three days, he can be "hired" for only three days, not for five years.

- *Decide how the renovation and new construction projects will be packaged.*

Most capital improvement programs for school districts consist of a large number of relatively small individual projects. Does it make more sense to hire a different architectural firm and contractor for each project, or should some projects be grouped together and, if so, how should they be grouped?

You also must choose between a vertical or a horizontal plan in purchasing: Should one contractor do *all* the work at each site (vertical approach) or should, say, one roofing contractor fix all the roofs, and one landscape contractor buy all the bushes, often with considerable savings through volume purchase (horizontal approach).

Smooth Sailing

Prepare to hire the first group of consultants needed—whether a project management firm to oversee the entire program, or a series of architectural firms.

Write ads, prepare requests for proposals and contracts, and decide who will serve on the selection committee.

When these steps have been taken, you are ready to take action the minute the bond issue is approved. You have a timetable to put into place and you know exactly when and where the carpenters and plumbers will appear first.

You and your staff will appear to be remarkably efficient and will convey to the voters and school board a sense of confidence that the entire program will proceed on schedule and their children will soon be sitting in more comfortable and safe classrooms, undistracted by peeling plaster, cracked windows, and stopped-up sinks.

The same kind of attention to procedures before design or construction begins will keep a program on track.

For example, if uniform space requirements and design guidelines are set in advance and given to all the architectural firms involved in the project, a great deal of time will be saved. You will not have to cover the same ground separately with each new firm.

Preparedness at the beginning will keep the monster of an enormous and expensive capital improvement program tamed, obedient, and under control. Hiring the right people to manage the program and setting up systems that build in control will prevent delay, inefficiency, and waste down the road.

But in order to be effective, strategic planning must begin almost as soon as the idea of a massive capital improvement program begins to take shape.

3DI Inc. is a project management firm with offices nationwide. The company currently oversees projects in the Houston and Los Angeles school districts.

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Flexible, Stylish Prefab Schools

BY THOMAS CLARK
Thomas Clark Associates, Architects, College Park, Maryland

When unprecedented residential growth caused Montgomery County Public Schools to plan a new elementary school in the Strawberry Knoll neighborhood of Gaithersburg, Maryland, the school system faced a serious dilemma: Should the new school be constructed less than a mile from another elementary school that had just opened? Future changes in the school-age population might result in underuse in one or both of the schools.

To meet the need for a new 750-student school and avoid future underuse problems, Thomas Clark Associates developed a program for prefabrication of all classroom and classroom support spaces. The program called for educational space which could be moved to another site in the future, if and when the need for an elementary school declined in the Strawberry Knoll neighborhood.

The program took advantage of Montgomery County's experience with prefabricated construction for individual portable classrooms and entire classroom wings.

Since the new site was adjacent to an existing neighborhood park, a conventionally constructed central core could remain in place and be readily adapted for use as a community center or recreation center.

A Closer Look

The school's total floor area is 78,723 square feet. The conventionally constructed "core" comprises 26,666 square feet. The 52,057 square feet of instructional space is prefabricated and consists of 102 separate components. (A typical classroom consists of two 12'8" wide components.)

All 102 prefabricated components were constructed off site at an indoor plant. The plant was large enough so that all components could be fabricated and assembled side-by-side in the same arrangement in which they would eventually be installed at the site.

The prefabricated construction consists of steel framing with a concrete floor on metal decking and a metal roof deck covered with rigid insulation and a single ply elastomeric roofing system. Exterior walls consist of 1/2" brick veneer on gypsum backerboard supported by steel studs with batt insulation.

Prefabricated construction allows this school to be moved to another site if enrollment changes. Photo courtesy of Thomas Clark Associates.

The interior wall face is composed of a double layer of gypsum drywall. The heating and air conditioning system consists of all-electric self-contained unit ventilators and rooftop units to facilitate the disassembly and relocation of the components in the future. The entire school, including the prefabricated construction, is equipped with a sprinkler system.

When the prefabricated components were completed in the plant, they were disassembled, shipped on flatbed trailers to the site, set on previously constructed foundation walls, and bolted together. Mechanical connections were completed at the site. All components arrived at the site with carpet, chalkboards and tackboards, shelving units, doors, mechanical units, ceiling grid, and lights in place.

The project includes 22 classrooms for grades 1 thru 6, four kindergarten classrooms, and a special education suite consisting of two classrooms for the Preschool Education Program and one classroom for the Early Childhood Program.

Special education support spaces, including rooms for an occupational therapist and a physical therapist, comprise an area equal to the size of one additional classroom.

Also included are a multipurpose room, a 70' by 75' gymnasium, art and music classrooms with a dual purpose room to supplement these functions, an instrumental music room, a media center, a communications center, an administrative area with a health suite, staff dining and staff lounge, a parent volunteer room, instructional support spaces, and facilities for the building service manager. The school kitchen is designed for a satellite food operation.

The completed school, which was occupied in September 1988, is intended to be inviting and cheerful in character. The cost of this project was $6,883,267 or $87.44 per square foot.

Thomas Clark Associates Architects are the winners of the 1989 Walter Taylor Award co-sponsored by AASA and the American Institute of Architects.

SECTION 9

COOPERATION
CONSOLIDATION

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Joint efforts turn small budgets into big ideas

By Michael E. Alexander and Robert G. Rogers

ONE COMPLAINT COMMONLY made about small school systems is that academic opportunities and student services are limited. But it doesn't have to be that way. With a little imagination and the cooperative effort of neighboring systems, any size school system can meet the diverse needs of its students.

We should know. In rural Illinois, the Bluffs (K-12; enr.: 300) and Triopia (K-12; enr.: 530) schools have formed a variety of joint programs with nearby school systems. Today, our students ride buses to nearby schools for special education classes, and our employes cross district boundaries to teach classes not otherwise available. None of this would be possible alone, but together, our school systems no longer are limited by small budgets or course enrollments too small to support the cost of hiring a teacher.

Of course, the idea of small schools pooling their resources is nothing new. But it's worth remembering that such joint programs are a workable option—and as proof, you need only look at their success in our area. Not only are we providing students with more course offerings and social services than ever, but we sometimes make our administrators' lives easier. For example, sharing a counselor means we need to find only one qualified employe, and it is easier to hire someone when we can promise a full-time job.

There's simply no limit to how closely school systems can work together. But to show you how far we've taken this concept, here's a partial list of the programs we've launched:

1. *Staff development.* The Bluffs Community Schools received only $574 in state funds last year for in-service training, which it pooled with the neighboring Meredosia school system to create a $1,274 pool for hiring a consultant. Administrators from both school systems agreed on the training program and then brought their teachers together for joint staff development sessions.

2. *Social work.* Illinois law requires school systems to provide a social worker to counsel students with family and personal problems. For a cost of approximately $3,600, the Bluffs school system shares a social worker with two other school systems. The Bluffs schools assume administrative responsibility for the counselor, while the other schools simply pay their share of actual costs.

3. *Speech therapy.* Both the Bluffs and Triopia schools are too small to afford (or even need) a full-time speech therapist. As a result, each school system has established a partnership with a nearby school system to share the cost of employing a therapist.

4. *Vocational education.* Several ventures currently are being tried in our area. The Winchester and North Greene schools share the heavy cost of an automobile mechanics program, which requires not only a full-time teacher but between $80,000 and $100,000 in equipment.

5. *Cooperative purchasing.* Three years ago, 20 school systems joined to purchase duplicating paper and copying fluid in bulk. On paper purchases alone, the Triopia schools saved approximately $1,250. This year, more than 40 area schools will cooperate on additional purchases, and the Triopia schools expect to save 30 percent on everything from paper towels to computer paper.

6. *Special education.* At Triopia, 31 learning-disabled and 18 educable mentally handicapped students need special education services. Lacking the resources to hire five additional employes at salaries of roughly $25,000 apiece, plus provide classroom space and equipment, Triopia began a joint program with Bluffs and another nearby system. (Some children also attend a special education cooperative in the area.) Students are bused to these schools, which agreed to hire teachers and administer the program. Even with yearly transportation and tuition costs of $80,000, the Triopia schools save an estimated $95,000 annually.

7. *Guidance services.* Until recently, the Bluffs schools employed a guidance counselor on a one-day-a-week basis, and the counselor. When both school systems needed to hire a new counselor, the two school boards agreed that Triopia would hire a full-time employe and the two split the cost: Now Bluffs has the counselor for two days a week, Triopia for three days.

8. *Gifted program.* As part of the 1985 Illinois School Reform Act, all schools must provide a gifted education program. Yet inadequate state funds were allotted. Last year, Bluffs received $1,628, and Triopia received $2,680. Pooling their money with four nearby systems, the schools raised $15,433 to hire two half-time program coordinators who help participating schools start up gifted programs for students in grades 4, 5, and 6. At Triopia, for example, a coordinator spends a half day each week supporting teachers, who themselves are assisted by parent volunteers certified as teachers and trained in gifted education.

With any joint program, of course, you must be prepared for problems. Transportation is often a sore point when students are bused to another site or employes rotate among schools. Conflicting school calendars or class schedules also are problems. Our response: These are minor irritants, but we respect the schedule of a program's host school. Good organization usually minimizes any inconvenience.

Perhaps more significant is the fact that working together requires school systems to surrender some control over their students and programs. Some school board members are reluctant to take such steps, if only because it remotely suggests an opening for consolidation. Administrators also dislike surrendering control, and taxpayers can question why their tax dollars aren't sufficient to keep their children at home. In such situations, it's incumbent upon your school board to emphasize firmly that such cooperation benefits children and that this simple fact should be the primary issue in any debate.

Organizing a joint program with neighboring schools can allow a small school system to expand its curriculum and student services and generally improve the educational quality of schools without rending its budget. Good planning is essential, but even more important is creativity. Almost anything is possible if your school board puts its mind to it—and is willing to pool its resources with other school boards that think the same way. □

Michael E. Alexander is superintendent of Triopia (Illinois) Community Unit School District No. 27. Robert G. Rogers is superintendent of Bluffs (Illinois) Community Unit School District No. 2.

How do you rate this article? Please turn to the reply card facing page 50 and circle *109* if you think it's excellent, *110* if you think it's good, and *111* if you think it's lousy. Thanks.

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SURVIVAL TACTICS FOR RURAL EDUCATION

Robert H. Decker
Charles R. May

Introduction

One reality confronting many rural communities is declining enrollment; particularly, in grades 9 to 12. National figures record the peak year of public school enrollment, grades 9 to 12, as 1976. A 25% decrease from that peak is projected by 1989. For the regions that have declining enrollment (especially the Northeast and North-Central regions of the United States) the numbers might be as high as 40% (Stinard, 1983). This decline will change the high school. School districts with one high school could face a disastrous situation if they cut back programs to meet financial constraints. Having only one high school, those schools districts do not have the option of closing and consolidating their secondary school as they do at the elementary level. Yet, declining enrollment in secondary schools requires fundamental reassessment of the purpose of the high school and the role of the high school in the community.

While implications of decline and change may be different for large and small districts, common fears exist. Districts whose high school population is 2,000 or more can project a loss of 500 to 1,000 students; they will be just as baffled as those whose enrollment will drop from 1,000 to 700 or 500 to 350 (Stinard, 1983).

Many strategies and approaches are open to districts in making the high school fill the role that meets community requirements, with fewer students. One such strategy is Inter-District Sharing.

Inter-District Sharing

Inter-district sharing is viewed by many as a solution whose time has arrived. As one superintendent phrased it: "Sharing is a means to enable us to offer a comprehensive educational program, even if we can't have a comprehensive school" (Stinard, 1983, p. 10).

Writings on inter-district sharing are limited. This concern is illustrated in a unique table entitled, "A Compendum of Advice to School managers as They Adjust to Decline," in which only two of the forty-two documents addressed inter-district sharing (Stinard, 1983).

Inter-district sharing is a relatively new alternative for rural school districts. In 1979, inter-district sharing was introduced in the State of Iowa with the implementation of School Law 280.15, which stated that any two or more public school districts could jointly employ and share the services of any school personnel, or acquire and share the use of classrooms, laboratories, equipment and facilities. Any classes made available to students in this manner would be considered as complying with the requirements relating to the maintenance of the twelve grades of a school.

Robert H. Decker

In Stinard's (1983) four year assessment of a seven county area in East Central, Iowa, he found that the percentage of school districts who entered into an inter-district sharing program increased from 23% to 49%. Administrators in approximately one-half of these school districts stated that they felt the need to do something different to improve their educational environment.

All sharing programs do not look alike. Sharing strategies can be very different. Some schools might pool students in a single location, move teachers and administrators among schools, bring specialized facilities or equipment to schools on a rotating basis, or bring students and teachers together across large distances through technological communication links. These cooperative ventures are utilized in varying degrees according to a particular school's needs. That need can range from sharing a single course or activity to a school sending all of their students from one or more grade levels to another district for all or a large portion of the educational program. This allows schools to maintain their own school boards and sports identities.

Questions to Ask

While many questions may be asked, some are more important than others when deciding to participate in a sharing program. School administrators have engaged in sharing programs for a number of reasons. Inter-district sharing programs have been the answer to many of these questions that have confronted administrators. These important questions are: (1) Do the teachers need an opportunity to learn new teaching methods? (2) Would the school like to offer more vocational experiences for students? (3) Does the school need qualified counselors or specialists? (4) Is the school unable to offer students the opportunity to take two or three years of science, math, foreign language, or English? (5) Is the school capable of offering special programs for the gifted and handicapped students? Where the response to any of these questions is "yes," sharing services might be the answer.

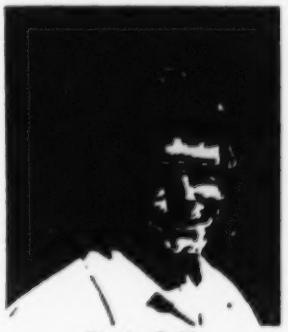
Sharing Possibilities

The following are examples of types of inter-district sharing that are in use today within rural areas of the United States.

1. Administrative and teacher sharing: Two or more districts share administrators and/or teachers in order to lower personnel cost. Within these personnel, financial arrangements are usually equalized on a percentage sharing basis.
2. Sharing Facilities: Two or more districts share one set of facilities, either on an alternating basis or at the same time. In this type of sharing program, an example might be that all 10th, 11th, and 12th grade students from district A attend school in a building in a neighboring school district B, and the 7th , 8th, and 9th grade students from the neighboring district B attend school in a building in school district A.
3. Activities Sharing: Two or more school districts combine their student bodies to field athletic teams, bands, or offer activities which might not otherwise be offered. These activities include sports as well as cheerleading and student newspaper involvement.
4. Technology Sharing: Two or more districts would share curricular offerings using satellite communications. Other types of technology that can assist in a sharing program might include microcomputer, slow scan, fiberoptic, and low power television capability. This type of communication system has gained and will continue to gain popularity with rural schools who are trying to reach a higher level of educational effectiveness.

Conclusion

Problems such as declining enrollment, a decline in classes being offered, and a lack of qualified staff to teach classes are only a few of the immediate concerns facing rural schools today. However, sharing indeed may be of value to many schools who are looking for creative ways to maintain or improve an educational climate. Sharing may also be viewed by many small school districts as a last resort to the alternative that many communities continually resist — consolidation.



Charles R. May

For those school districts who are searching for creative and innovative ways to meet the challenges of declining enrollment and declining dollars, developing an inter-district sharing program could be an answer. For school districts who perceive their state legislature mandating more stringent educational standards and financial incentives for larger student populations, sharing could be a possibility. For those school districts which are trying to maintain an existing program and continue to exist in states where legislatures are mandating "bigger is better," may find some hope in developing a sharing program.

Whatever the reasons for becoming involved with a sharing program, the most crucial question needs to be asked and answered. That question is, "What is this program going to do for our students?" Sharing can offer students a much larger and well rounded education without taking away the small school atmosphere.

Is sharing a cure-all for what is ailing school districts? Probably not! For those school dis-

tricts that are rooted in tradition, a sharing proposal may be unacceptable.

Students are not going to be educated as students were educated fifty years ago. Rural communities need to maintain as many traditions as possible but not at the expense of hindering young people in acquiring knowledge to be able to compete for jobs in the 21st century. And on this basis, rural educators and communities need to look at alternative approaches to better educate their students.

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Research in Rural Education, Volume 5, Number 1, 1988

The Federated District—A Planning Model for Rural Schools

CHARLES H. SEDERBERG[1]

The federated school district is a cooperative organizational alternative for low enrollment rural districts that face future enrollment decline and/or fiscal exigency. This alternative is most feasible for adjacent districts that serve small to medium size geographic areas. Salient characteristics include local elementary attendance units, small regional high schools, a governing assembly with an executive committee from existing school boards and a multiple district administrative team. The planning model uses hand or microcomputer spreadsheet calculations to simulate the organizational structure implications of cooperation among various combinations of existing elementary-secondary districts. Use of the model incorporates a rational, data-based approach into what is essentially a political process. Acceptance of an adequate federated district organization would provide a larger framework for cooperation in planning and implementation of instruction, student support, plant facility, transportation, administration and other services.

THE FEDERATED DISTRICT— A PLANNING MODEL FOR RURAL SCHOOLS

Demographic, economic and educational changes present unique challenges in planning for rural schools. Low enrollment rural districts which face further enrollment decline and/or financial exigency have three options. 1) They can do nothing—allowing educational programs and district financial condition to deterioriate until state intervention becomes necessary. 2) They can consolidate— being integrated into a new or existing larger school organization. 3) They can cooperate—working together to increase efficiency and educational program opportunity.

The federated district planning model was developed to assist rural communities that wish to explore cooperative alternatives. Developmental activities are summarized in following sections that describe 1) changes and trends to which the model responds, 2) assumptions and characteristics of a federated district, 3) planning procedures and 4) results of a simulated test.

CHANGES AND TRENDS

Research on rural school districts indicates both great diversity and common problems within state educational systems. Each planning effort requires a separate literature review to identify general state and unique local trends that affect rural schools. Many of the studies cited in this section were selected because of particular applicability to districts included in the simulated test of the federated district planning model.

1) *Some rural school districts face continued enrollment decline.* The most recent enrollment projections by the Minnesota Department of Education projected school district enrollments through 1989-90. While projections indicated a 1.3 percent increase statewide, declines of 9.2 percent in the northeast and 1.6 percent in the southwest and west central regions were projected. Seventy-six districts were expected to lose 10 percent or more of their enrollment during the 1984-85 to 1989-90 period.[1] A population projection by the State Demography Unit indicated that between 1990 and 2000, 30 rural Minnesota counties will experience population decline. During this period, numbers of people in the 25 through 39 year child bearing age group will also decline.[2] Aging and loss of population in rural counties foreshadow enrollment decline for some rural districts.

2) *The economic base for local financial support of some rural schools is eroding.* Causes and characteristics of the "farm crisis" have been studied and reported widely. Dion and Raup reported a drop of 26 percent in estimated value of Minnesota farmland from 1984 to 1985. The 1985 estimated value per acre of $686 represented a 48 percent drop from a highpoint of $1,310 per acre in 1981.[3] Stinson and Sigalla used an econometric model to assess the impact of decline in farm income in southwest Minnesota. Using the average of years 1974 through 1977, a $265 million drop in farm income produced a) a further decline of $47 million in local income outside the agricultural sector, b) a loss of 3,650 full and part-time jobs and a loss of $3.1 million in downtown property value.[4] Boody and Rivard identified second and third order social and economic effects of decreased farm income, high indebtedness and declining land value.

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Among the numerous second and third order effects they identified were tax delinquency, local budget crises and decreased tax resources—effects that have direct implications for local school financial support.[5]

3) *School districts play an important economic role in some rural communities.* An exploratory study of the economic role of school districts in six selected rural Minnesota counties found that a) school district gross payrolls ranged from 4.3 to 9.3 percent of state gross income earned in the county, b) school employee take-home pay ranged from 4.7 to 9.9 percent of county retail sales, c) district employees constituted from 1.4 to 5.2 percent of the county workforce, d) state education and property tax relief aids returned from 28.7 to 107.1 percent of income and sales taxes collected in the county and e) federal education aid returned from 1.9 to 10.1 percent of federal income taxes paid. Local realtors estimated that school closings could significantly reduce residential and commercial property valuation in some rural communities.[6] These findings highlighted the need to minimize the loss of secondary economic effects of school operations in restructuring rural districts.

4) *District "pairing" and shared superintendents are marginal organizational arrangements for some rural districts.* In 1986-87, 33 Minnesota school districts were involved in pairing arrangements. Anecdotal data indicated that a) pairing was most successful when declining districts pool students to maintain existing quality programs, b) some workable pairing arrangements are threatened financially and educationally by projected enrollment decline and c) pairing one inadequate district with another does not automatically result in an effective and efficient organizational structure. In 1987, 57 Minnesota rural school districts were involved in shared superintendent arrangements. A study of 63 shared superintendents in 21 states indicated a) financial exigency was the most frequently cited reason for sharing a superintendent (52 percent), b) most shared superintendencies involved two low-enrollment rural districts (60 percent), c) most respondents (60 percent) found multiple district administration more stressful and d) a majority (56 percent) thought that a multiple district administrative team could improve efficiency and effectiveness. Under desirable conditions, the shared superintendent can be a workable arrangement, but role ambiguity and role overload occur when there are competing community expectations and multiple problems such as fiscal crises, bargaining impasse and building programs that require much time and specialized skills.[7]

5) *Rural elementary attendance units should be local community schools.* A review of 25 studies addressing elementary school size found recommended minimum enrollment sizes ranging from 175 to 720 students. The studies assumed a school organizational structure that need not contend with low student density and therefore were not generally applicable to rural areas. One study found that school size was not an important factor in achievement when school socio-economic status and ability were controlled.[8] The research on elementary school size indicates that small graded, combination-grade or even ungraded elementary schools may require alternative delivery systems for special services, but that they would not necessarily be educationally ineffective.

6) *Secondary (grades 7-12) attendance units need to be regional high schools in some rural areas.* Enrollment size is a critical factor in high schools that use a traditional grade-level, subject-matter, classroom group delivery system. Some minimum number of students is needed to a) generate sufficient revenue for employment of specialized teachers and b) justify offering elective courses. A review of 75 studies reported recommended minimum senior high school (grades 10-12) enrollments ranging from 100 to 1,600 students. Variability in these findings was due to the nature of districts studied, educational programs offered and socio-economic characteristics of the communities served. The reviewers evaded the minimum size issue by concluding:

> School size is not absolute; it is but one of many factors related to educational quality. Good education can and does occur in schools ranging in sizes from small to large.[9]

A preliminary study of program based foundation aid found that, on the average, as Minnesota secondary enrollments drop below 374 students in grades 7-12, schools experience increasing difficulty in offering comprehensive programs.[10] A study using simulated master schedules indicated that 300 students in grades 7-12 was the minimum enrollment size for a specified comprehensive program with an "ideal" teacher licensure mix and an optimum pattern of student elective course choices.[11]

A recent Minnesota Department of Education study used an average program cost model to estimate the amounts of revenue needed to support the State Board of Education (SBE) minimum program in districts with enrollments of a half section (15 or fewer students), one section (16 to 30 students) and two sections (31 to 60 students) per grade. Among the half section districts the study found, "For all eighty-seven districts, the selected (expected) revenue is less than the model expenditure suggests." In the case of one section per grade districts the study found, "Current (expected) revenues do not appear to be sufficient to cover projected model expenditures for 40 of these 47 districts." Of 65 two-section districts, 43 (66 percent) did not have sufficient (expected) revenue to cover expected expenditures under the model. Reasons for continued financial survival of small districts with inadequate revenue included a) below average salaries, b) fewer staff than suggested by the model, c) additional revenue from locally approved levies, d) interest income, e) reduction of fund balances, f) sharing arrangements with other districts and g) not meeting SBE minimum program requirements.[12] The study did not propose a minimum secondary school size. It can be inferred from the findings that secondary schools with two sections (31 to 60 students) per grade or fewer students can expect both programmatic and financial problems in offering a basic educational program under current Minnesota school finance formulas.

Communications technology (satellite, cable and microwave television) has been proposed as an alternative to school district reorganization. No research was found on the effect of technology on minimum secondary school size. Anecdotal data indicate that a) interactive television has allowed some small schools to offer low incidence elective courses such as advanced mathematics and foreign language, b) quality televised instruction requires special preparation and production support, c) regular and widespread use is needed for cost efficiency and d) subjects areas that require student "hands-on" participation do not lend themselves to televised instruction. While communications technology offers potential for curriculum improvement it does not address the issue of adequate organizational structure.

7) *Some rural school districts are "under-administered."* Carter stated

> "... there are few areas of greater disagreement between a superintendent and board members than the number of personnel required to carrying on central office operations."[13]

Increased management expectations of local school districts during the past 20 years have included collective bargaining, modified accrual budgeting and accounting, education of all children with handicaps, monitoring learner outcomes and computerized data processing and reporting. Large districts responded to increased management expectations by employment of administrative staff such as personnel directors, accountants and other specialists. The local administrative capacity of small rural districts has remained virtually unchanged. In a literature review, Benham, Capehart, Nolley and Seawell identified the seven essential functions of the district central office as administration of a) instruction, b) business, c) staff-personnel, d) pupil-personnel, e) educational research, f) general oversight and g) school-community relations.[14] Literature included in this review was published between 1955 and 1972. The essential functions are probably still valid, but might be conceptualized differently in the light of current themes such as principals as instructional leaders, decentralized (site) management, increased competency and autonomy for teachers and school administration information systems.

8) *Adequate administrative staffing is essential for effective school organizational structures.* Without distinguishing between elementary and secondary schools, a recent staffing adequacy study reported a mean of 359.4 students per building level administrator with a range of 206 to 501 between the 10th and 90th percentiles among 204 very small (300 to 2,499 students) school districts. The same study reported a mean of 20.4 teachers per building administrator with a range from 13.5 to 29.0 between the 19th and 90th percentiles.[15] A doctoral study of 30 randomly selected Virginia public school systems with 6,000 or fewer students reported a mean of 2.631 district central office staff per thousand students. Capehart's extensive review of literature on central office staffing for small districts found 1.5 central office administrators per thousand students to be the minimum acceptable staffing ratio.[16] The most recent study of district central office staffing ratios found a mean student to district central office staffing ratios of 556.5 to 1 with a range of 233 to 948 to 1 at the 10th and 90th percentiles in a sample of 212 very small (300 to 2,499 students) districts. The data also indicated that districts with higher per student expenditures tended to employ more administrative staff.[17]

ASSUMPTIONS AND CHARACTERISTICS

Three basic assumptions undergirded development of the federated district planning model. These assumptions were:

1) Planning for cooperative organizational alternatives should be based on projected enrollments and include allowances for decline beyond the forecast period to sustain cost-efficiency and organizational stability over time. Small-scale cooperative arrangements that meet immediate needs may be short-term "band-aid" solutions that reduce stability and confidence in the school system.

2) Effective medium to long range educational planning must attempt to respond to trends and changes in the environment external to school organizations. Of particular importance are demographic trends that suggest numbers and needs of future students and economic trends that point toward future local capacity to support schools. The pilot test used base-year general fund expenditure per weighted pupil unit as an estimate of capacity to support schools. The relationship between district revenue and expenditure is more important than absolute estimates of dollar amounts in the model.

3) An adequate organizational structure is essential for representing the educational interests of rural communities and providing a vehicle for continued planning and implementation of instruction, student support services, plant facilities, transportation and administrative services. Formal organizational structure provides a framework within which individuals and groups can work together.

The goals and characteristics envisioned for the federated district included the following:

1) Small graded, combination-grade or ungraded elementary attendance units would be operated in each town; keeping children close to home, eliminating undesirably long bus rides and minimizing the loss of secondary economic effects of school operations. An elementary director/principal would supervise several attendance units.

2) The federated district would operate one or more area secondary (grades 7-12) schools of sufficient enrollment size to provide comprehensive programs and to justify employment of a full-time principal.

3) An assembly made up of elected school boards from all federated district members would be the governing body or "big school board" for the federated district. An executive committee of the assembly with representation from each member district would be established to perform routine monthly school board tasks on behalf of the assembly. The assembly and executive committee organi-

zation would provide a unified governance structure with broad participation in local control.

4) A general superintendent would a) report to the executive committee and the assembly and b) direct the activities of an administrative team with specialized skills for i) general executive oversight (planning, implementation of policy and intergovernmental relations), ii) resource management (finance, personnel and fixed assets) and iii) accountability (information systems, monitoring and reporting).

5) Regional educational service units would continue to provide instructional support, staff development, low incidence special education and similar services. Federated districts could make more effective use of regional services.

PLANNING MODEL PROCEDURES

The following steps were used in the simulated test of the federated district planning model. Adaptations may be required for use in other states. The procedures may be performed by hand calculation or with the aid of a microcomputer spreadsheet.

1. Specify the following initial federated district organizational parameters.
   a. Number of students per elementary principal.
   b. Minimum size of secondary school to be administered by one full time principal.
   c. FTE administrative staff for district central office functions.
      1) General superintendent.
      2) Deputy superintendent.
      3) Business manager.
      4) Personnel director.
      5) Curriculum director.
      6) Other.
   d. Level of enrollment decline beyond five-year projection not requiring organizational restructuring.
   e. Acceptable proportion of general fund revenue to be appropriated for all administration programs.
   f. Acceptable proportions of administration program appropriations for building and district central office administration.
2. Collect or calculate data for the planning model.
   a. Identify all districts that are potential members of a contiguous federated district.
   b. Estimate a base year unit cost for each building and district central office administration program identified in Steps 1a, b and c.
   c. Collect the following data for each potential federated district member:
      1) Base year enrollment in grades K, 1-6, 7-12.
      2) Five-year enrollment projections for grades K, 1-6, 7-12 (or enrollment history and census data for making the projections).
      3) Base year general fund expenditure.
   d. Calculate weighted pupil units if used for state revenue distribution.
   e. Calculate a planning projected enrollment for each potential federated district member by multiplying the decline factor in Step 1d times the year-five projected enrollments obtained in Step 2c2.
   f. Calculate planning weighted pupil units by multiplying planning projected enrollments obtained in Step 2e times student weighting factors (if used in distribution of revenue).
3. Combine potential federated districts and/or adjust parameters until organizational structure parameters in Step 1 are met.
   a. Estimate building, central office and total administration program required appropriation using a plausible trial number of potential federated district members, planning enrollment from Step 2e, ratios and FTE data from Steps 1a, b and c and estimated cost data from Step 2b.
   b. Estimate federated district general fund revenue using base year pupil unit expenditures from Step 2c3 and planning enrollment from Step 2e.
   c. Estimate general fund appropriations for all administration programs (Step 1e times Step 3b) and appropriations for building and district level administration programs (Step 1f times Step 3b).
   d. Compare estimated required federated district building, central office and total administration program appropriations (Step 3a) with available federated district allocations (Step 3c). An excess of required administration program appropriations over available allocations indicates that the organizational structure does not satisfy budgetary requirements of the parameters established in Step 1.
   e. Recycle the model with other combinations of potential federated district members and/or adjusted organizational parameters until one or more adequate and acceptable organizational structures is identified.

RESULTS OF A SIMULATED TEST

A simulated test of the federated district planning model was conducted using 20 school districts serving all or part of ten rural counties in southwestern Minnesota. The planning model was programmed into an Appleworks™ spreadsheet to facilitate changing organizational parameters and combining potential federated district members. The convenience of the spreadsheet prompted collection of additional base year descriptive data (area, 1980 U.S. Census, FTE professional staff, unappropriated fund balance, adjusted assessed valuation and bonded debt) to be incorporated into computer generated profiles of alternative federated district configurations.

The spreadsheet program made it easy to recycle the model many times using different organizational parameters and potential member districts. One limitation of the simulated test was the lack of involvement by representatives from potential member districts who would have added realistic political, vested interest and local preference dimensions. The organizational parameters used in the final run included the following:

a. Elementary student to principal ratio—300:1.
b. Minimum secondary enrollment (grades 7-12) to principal ratio—450:1.
c. One FTE central office administrators each—superintendent, business manager and director of personnel.
d. Allowance for enrollment decline beyond five-year projection—10 percent.
e. Proportion of general fund expenditure for administration—10 percent.
f. Proportion of administrative expenditure for buildings—75 percent.
g. Proportion of administrative expenditure for central office—25 percent.

The smallest federated district profile that satisfied all model parameters included eight existing districts with K-12 enrollments ranging from 142 to 568 students. Projected enrollments for these member districts would decline from 4,119 to 3,996 in the next five years. Combining base year data for these eight districts indicated that they would have had a general fund expenditure of about $11,719,000, an adjusted assessed valuation of $175,142,000, an existing bonded debt of $3,974,000 and an unreserved fund balance of $1,284,000. Were these eight districts to accept the federated district model, they would maintain an elementary attendance unit in each town, but operate no more than five regional secondary schools instead of the present eight.

Further study of federated district feasibility and policy implications are needed. The federated district planning model is, at best, a first step. An adequate organizational structure is a means toward the end of providing a framework or vehicle for aggregating and deploying financial, personnel and fixed asset resources to deliver educational services. Within the context of a federated district organization plan, subsequent supporting plans for instructional support, student support, co-curricular, food service, transportation, plant operation, debt service and other programs are necessary components of a comprehensive planning effort.

State education agency approval of local federated district plans should be required in fulfilling the state constitutional mandate for a uniform system of public schools and advancing the state's collective interest in quality education. The approval process would provide for a) enforcement of minimum standards or acceptable ranges adopted by the Legislature or the State Board of Education, b) insure that "islands" of educational deprivation would not occur between federated districts and c) provide third party review of plan feasibility.

ENDNOTES

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3. Douglas Dion and Philip M. Raup, "The Minnesota Rural Real Estate Market in 1985," *Minnesota Agricultural Economist, 650,* 1. St. Paul: University of Minnesota Agricultural Extension Service, 1986, p. 1.

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5. George Boody and Michael Rivard, *Economic and Social Vulnerability in Rural Minnesota: An Urgent Needs and Resource Assessment* (Final Report to the Rural Strategy Task Force). Minneapolis: The Rural Enterprise Institute, 1986, p. 12.

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13. Clyde N. Carter, "How Many School Administrators are Enough?", *Nation's Schools, 82*(3), 1968, p. 1.

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15. Educational Research Service, Inc., *School Staffing Ratios, 1984-85.* Arlington, VA: ERS, Inc., 1985, pp. 39, 18.

16. John C. Capehart, *The Organizations, Functions, and Adequacies of Central-Office Staffs of Small-Size School Systems* (Doctoral dissertation, University of Virginia, 1977).

17. Educational Research Service, Inc., *Ibid.*, p. 41.

SECTION 10

OTHER INFORMATION SOURCES

Number 61, November 1981

ERIC

The Best of ERIC presents annotations of ERIC literature on important topics in educational management.

The selections are intended to give educators easy access to the most significant and useful information available from ERIC. Because of space limitations, the items listed should be viewed as representative, rather than exhaustive, of literature meeting those criteria.

Materials were selected for inclusion from the ERIC catalogs *Resources in Education (RIE)* and *Current Index to Journals in Education (CIJE)*.

ERIC Clearinghouse on Educational Management

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School Size

1 **Educational Research Service.** *Summary of Research on Size of Schools and School Districts. ERS Research Brief.* Arlington, Virginia: 1974. 65 pages. ED 140 458.

What are the existing and recommended sizes for schools and school districts in the United States, and how can the shortcomings of being too small or too large be overcome? This summary of the literature on the size issue answers these questions and provides a wealth of information and recommendations that can help administrators determine optimum school and district sizes.

Existing elementary schools have an average enrollment of 401 pupils, while the average secondary school has 751 students. Urban and larger school districts, as expected, tend to have larger schools than do rural and smaller districts.

Minimum, optimum, and maximum school sizes, as recommended by researchers and practitioners, vary widely. Recommendations for elementary schools, for example, range as follows: minimum sizes—175 to 720 pupils; optimum sizes—350 to 720; and maximum sizes—350 to 1,500. Recommendations for middle, junior high, and senior high schools vary similarly.

This publication reviews seventy-five studies conducted to determine optimum senior high school size. The numerous studies are classified and discussed according to the measures of quality used, such as per-pupil expenditure, pupil achievement, curriculum offerings, special services, pupil and staff relations, and success after high school.

The inadequacies of small schools can be minimized in numerous ways. If only one teacher is available for several advanced courses, for example, "multiple classes" similar to the one-room school can be utilized. Technological advances such as programmed instruction or computer-assisted instruction might also help. Students can be enrolled in supervised correspondence courses or on-the-job training, or minicourses on specialized topics may be taught.

The primary strategy for minimizing the problems of a large school is to break the school into various "houses" or "schools-within-a-school." Included are sixteen tables and an extensive bibliography.

2 **ERIC Clearinghouse on Educational Management.** *School Size: A Reassessment of the Small School. Research Action Brief Number 20.* Eugene: Oregon University of Oregon, 1981. 4 pages. ED number not yet assigned.

"The optimum school size is the one that supports the kind of education the community wants at a cost it is willing to pay." This sensible conclusion contrasts sharply with the near consensus among educational policy-makers of recent decades that bigger schools are better schools.

After tracing the dramatic success of the school consolidation movement, this Research Action Brief surveys empirical evidence on school size (mostly high schools), finds most of it unreliable, and concludes that school leaders in search of the best school size should look beyond the research to the preferences of their publics.

Research supporting the arguments that larger schools are cheaper and more educationally comprehensive abounds. But much of this evidence favoring larger schools cannot withstand the stress of critical examination. Many of the studies are improperly controlled, methodologically unsound, or take too narrow a view of the size issue. For example, a positive relationship between larger size and student achievement was found by several studies, but when later studies controlled for students' intelligence or socioeconomic class, the relationship disappeared.

Despite these flaws, there is reason to conclude that "the optimum range of high schools in terms of cost effectiveness is probably in the neighborhood of 1,600 to 1,700 students, give or take a hundred." There are many local factors that must be taken into account, however, when applying this range to a particular school.

In a time when school closures elicit strong negative public feeling, school administrators should see in the school size issue an opportunity to recapture support by a public that still prefers small "neighborhood" schools. Some of the obvious limitations of small schools—such as staff inflexibility, lack of specialists, and limited resources—can be overcome by a little imagination and footwork. In terms of economy, "efficiently run small schools can cost about the same as inefficiently run large schools." In the end, school officials "need to be as concerned with parent and community perceptions of the quality of the schools as they are with such issues as comprehensiveness and costs per student."

3 **Fox, William F.** *Relationships between Size of Schools and School Districts and the Cost of Education. Technical Bulletin No. 1621.* Washington, D.C.: Economics, Statistics, and Cooperatives Service, Department of Agriculture, 1980. 33 pages. ED 187 029.

In 1930, there were 128,000 public school districts and 262,000 public elementary and secondary schools in the United States. In 1970, despite a doubling of public school enrollment, the number of districts had decreased to fewer than 17,000 and the number of

schools to less than 90,000.

The consolidation movement assumed that larger schools and districts would provide increased economy and efficiency in the delivery of education. Intensive research on the relationship between cost of education and school size, however, was not begun until the late 1950s, and this research, says Fox, has given inconsistent results. To help explain some of the inconsistencies in this research and to draw some overall conclusions from it, Fox here examines the theoretical, methodological, and empirical bases of over thirty studies on the issue of size economies in education.

"Per pupil school costs appear to be characterized by a U-shaped average cost curve," states Fox, meaning that "optimum" school sizes apparently do exist. Optimum size, however, depends on other factors, such as population density. Thus, studies conducted in rural areas found smaller optimum sizes than did studies conducted in urban areas, which found optimum high school sizes of between 1,400 and 1,800 pupils.

Numerous weaknesses exist in nearly all these studies, however, states Fox. "The theoretical underpinnings of nearly all of the interpretable studies are deficient and some may suffer from data difficulties," he states. Thus, though the existence of size economies appears certain, the weaknesses in each study "raise doubts about the exact size of any economies."

Other difficulties also exist. Many studies do not consider how other costs—such as transportation—change with school size. Size-economy "may also depend upon whether new buildings will be constructed or whether students will be redistributed among existing schools." Finally, quality of life (for example the existence of neighborhood schools) and quality of education must be considered in determining optimum school size.

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4 **Guthrie, James W.** "Organizational Scale and School Success." *Educational Evaluation and Policy Analysis*, 1, 1 (January-February 1979), pp. 17-27. EJ 207 325.

"The school consolidation movement," states Guthrie, "perhaps reflects one of the most awesome and least publicized governmental changes to occur in this nation during the twentieth century." In this excellent and well-written article, Guthrie recounts the historical development of the consolidation movement, examines closely some of the research evidence regarding school and district size, and suggests a number of strategies for future research on the size issue.

Between 1930 and 1972, the number of school districts in the nation decreased eightfold, and the total number of schools decreased threefold, while the nation's school population doubled. Most of the decrease in the number of schools was due to the elimination of one-teacher schools, which Guthrie calls "the modal experience in 1930."

The justification provided by policy-makers for this grand "metamorphosis" of the nation's educational system was that larger schools would be more economically efficient and would provide better instruction than would smaller schools. Cost savings were to result from operating fewer administrative units and from purchasing supplies centrally.

Several recent studies have pointed out, however, that most scale economy studies using rural schools have failed to take transportation costs into account. Savings garnered from centralized purchasing may also be subsequently lost by increased school district distributional costs. "Evidence in favor of cost savings associated with larger size schools and school districts is, at best, ambiguous," Guthrie concludes, especially in rural areas where consolidation has been most dramatic.

For handicapped students, larger schools do appear to offer distinct advantages in the form of specialized services. But for "normal" students, Guthrie maintains, the "advantages of size so strongly proclaimed by consolidation advocates are seldom supported empirically." Again, the evidence that "bigger is better" is ambiguous. Guthrie concludes by outlining a "school scale research agenda."

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5 **Hess, Fritz; Martin, Wilfred; Parker, Donald; and Beck, Jerry.** "School Size and Its Effects on Achievement and Other Educational Issues." Chapter 1 of *Issues in Education: A Documented Look at Seven Current Topics*, compiled by Fritz Hess and others, pp. 1-21. 1978. ED 158 392.

"Is bigger really better, or do good things come in small packages?" This question has been debated for decades by educators with arguments more often than not based on intuitive speculation rather than on researched facts. But a good deal of empirical research has been conducted on the relationship of school size to academic, economic, institutional, and psychological factors. In this paper, Hess, Martin, Parker, and Beck review the methodologies and results of a large number of these studies and draw some general conclusions from them.

The preponderance of existing research has focused on "the connection, or lack of it, between school size and such academic factors as pupil achievement, success in subsequent education, and range of curriculum offerings," state the authors. Many studies found no significant relationship between school size and pupil achievement. Others, however, found that larger schools produced better results. The available research, conclude the authors, suggests that larger schools, within "reasonable upper limits," are "conducive to higher levels of pupil achievement than their smaller counterparts."

Researchers have found little relationship between school size and subsequent pupil success or failure, when differences in mental ability of students were adjusted for. Definitive relationships, however, exist between school size and range of curriculum offerings.

In economic terms, the authors state, "the bigger equals better adage has a basis in research." As with academic factors, a variety of optimum sizes have been proposed by researchers, but in general larger schools seem to be more cost efficient.

Researchers generally acknowledge that close staff-pupil relationships can be more easily achieved in smaller schools. Other researchers have demonstrated that "smaller high schools were more conducive to participating, emotionally healthy student populations."

Most existing research, the authors conclude, indicates that larger institutions, in general, are often more desirable. Efforts should be made, however, "to compensate for psychological and emotional factors in such schools."

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6 **Hickcox, Edward, and Burston, Geoffrey.** "The Question of Size." *Education Canada*, 13, 3 (September 1973), pp. 41-43. EJ 088 789.

Research has not yet revealed—nor is it likely to reveal—an "optimum" school or system size. The work done on the question of organizational size, Hickcox and Burston point out, "other than articles based on a fuzzy idealism or some sort of idealogical bias, shows, in a convincing fashion, that there is little relationship between size of system, school or class, and any productivity measures."

Some studies *do* indicate that size—"in combination with a myriad of other factors"—does have some effect on output measures. But because of the complex relationships, "no one so far has been able to isolate the effect of size in any significant way."

Hickcox and Burston believe that the central concern of adminis-

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trators should be the learning relationship between teacher and student. "The administrative structure, no matter what the size, must support that relationship," they state. Thus, educational policy-makers and administrators "should focus their energies not on how large schools should be, but on how to organize them, given a particular size."

When decisions about school or system size must be made, administrators should consider other factors besides cost and student development. Geographical factors—such as population density—should be taken into consideration. Likewise, history and tradition, as well as political considerations, may be important. But "size *per se* is not the crucial factor," the authors emphasize. "Other factors important to the learning situation have to be taken into consideration."

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7 **Huling, Leslie.** "How School Size Affects Student Participation, Alienation." *NASSP Bulletin*, 64, 438 (October 1980), pp. 13-18. EJ 232 068.

Do students in small high schools participate in extracurricular activities more than students in large high schools? Are students in small schools less "alienated"? According to Huling, educational research and literature indicate that the answer to both these questions is yes.

One researcher, for example, found that only 32 percent of the students in large (1,500 or more students) schools participated in one or more school activity, while in medium-sized schools (600-1,499 students), 76 percent participated. The reason for this difference is that smaller schools have about the same number of extracurricular activities available as do larger schools and, thus, a larger proportion of students in small schools can fill "positions of responsibility." As one researcher put it, in small schools students are "generally less expendable."

Another study discussed by Huling examined "marginal" students in different-sized schools. In small schools, marginal students "were similar to their regular schoolmates in the sense of obligation they felt toward participating in school activities." In large schools, however, marginal students, as a group, reported "little, if any, sense of obligation."

Student alienation, Huling points out, is difficult to measure precisely, but some studies shed indirect light on the relationship between school size and student alienation. In general, these studies indicate that "students in small schools are less alienated than students in large schools."

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8 **McGuffey, Carroll W., and Brown, Carvin L.** "The Relationship of School Size and Rate of School Plant Utilization to Cost Variations of Maintenance and Operation." *American Educational Research Journal*, 15, 3 (Summer 1978), pp. 373-78. EJ 189 652.

Does the per-pupil cost of maintaining and operating a school go down as school population rises? At what level of design capacity does the per-pupil cost of maintenance and operation (M&O) reach a minimum?

To find out, McGuffey and Brown tapped the computer banks of the Atlanta (Georgia) public school system, which hold data on school populations and cost of school plant operations. Altogether, they examined twenty-three high schools and thirty-three elementary schools.

Independent variables included the size of each school and the utilization rate of each school—computed by dividing the school's population by the design capacity of the school plant. The dependent variable—pupil cost for M&O—included "maintenance materials, labor, custodial supplies, custodian salaries, all utilities, and miscellaneous items normally charged to maintenance and operations fiscal accounts."

As expected, larger schools had a significantly lower per-pupil cost of M&O than did small schools. High rates of plant utilization also led to significantly lower per-pupil M&O costs. Both relationships were stronger for secondary schools than for elementary.

The lowest predicted per-pupil cost of running secondary and elementary schools in Atlanta would be achieved by operating them at 114 percent and 135 percent of their design capacities, respectively. However, schools should not necessarily be operated above 100 percent of their design, the authors warn, because their study did not consider such pertinent factors as the potential for group conflict and the violation of individual space requirements in overcrowded schools.

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9 **Ratsoy, Eugene W., and Bumbarger, Chester S.** "School Size, Cost and Quality." *Canadian Administrator*, 15, 5 (February 1976), pp. 1-5. EJ 138 044.

The "deification of bigness in education" has led to efforts to consolidate educational systems in both the United States and Canada. Because of declining enrollments, population sparsity, and geographical barriers, however, small schools will persist and may even grow more numerous in the future. In this monograph, Ratsoy and Bumbarger compare small and large schools and recommend some steps for overcoming the disadvantages of small schools.

Several studies show that "in general, the smaller the school, the less well-prepared is the staff in terms of degrees held, years of experience or certificate held." Staff members in small schools, however, take on a broader range of tasks, and teachers often teach outside their area of specialization.

The curriculum offered in larger schools, state the authors, is broader. On the other hand, a greater percentage of students in small high schools participate in extracurricular activities than do students in large schools.

Research comparing student achievement in small and large schools is conflicting, at least in part due to flawed experimental design. A recent study of schools in Saskatchewan, however, found that there were no significant relationships between performance on the Canadian Test of Basic Skills and such organizational factors as size of school, size of classroom enrollment, class and grade organization, or transportation to school.

Several studies show that small schools cost more per pupil to operate, and many states and provinces provide extra funds for small schools. Suggestions for improving small schools include the use of itinerant specialist personnel such as coaches and art and drama instructors, expansion of library resources for independent study, greater numbers of extracurricular activities, and work experience programs in cooperation with local industries.

10 **Schneider, Barbara L.** *America's Small Schools.* University Park, New Mexico: ERIC Clearinghouse on Rural Education and Small Schools, New Mexico State University, 1980. 53 pages. ED 187 508.

"Are small schools 'better' places for educating elementary and secondary school students," Schneider asks, or have Americans simply adopted "big to small" as the latest panacea for improving education? To shed light on this question, Schneider here examines the diversity of small schools and reviews the research that identifies the strengths and weaknesses of small schools.

Small schools are usually regarded as synonymous with rural public schools, says Schneider, yet the matter is not that simple. A variety of "small" schools exist, not only in rural areas, but in urban and suburban areas as well. Publicly funded small schools include rural schools, Indian schools, schools for American dependents overseas, alternative schools, and special schools for the mentally and physically handicapped. Privately funded small schools include religious and nonreligious schools, boarding schools, and academies.

So do small schools provide a better educational experience? Unfortunately, says Schneider, the answer to that question is hard to come by. There is only a small amount of research exploring the relationship between school size, economics, and quality of education, and most of this research is inconclusive or inconsistent. Schneider reviews some of this research and concludes that before policy-makers jump on the small school bandwagon, they should carefully consider the strengths and weaknesses of small schools.

11 **Sher, Jonathan P., and Tompkins, Rachel B.** *Economy, Efficiency, and Equality: The Myths of Rural School and District Consolidation.* Washington, D.C.: National Institute of Education, 1976. 47 pages. ED 135 507.

Rural school and district consolidation has been "the most successfully implemented educational policy of the past fifty years," state Sher and Tompkins. Although not entirely devoid of worth, the strengths of the movement have been "greatly exaggerated, its weaknesses often ignored, and its overall merits as a strategy for educational reform and improvement grievously overstated and oversold." In what is perhaps the best critical analysis of the school consolidation movement to date, Sher and Tompkins here openly attack the research evidence, the rationale, and the "myths" supporting rural school consolidation.

School consolidation has been and continues to be implemented with enthusiasm, a fact that would lead one to expect the empirical evidence supporting consolidation to be overwhelming. But it is not, state these authors. The evidence is incomplete; the research is, with rare exception, methodologically unsound; and the conclusions of the studies on consolidation are "at best, inconclusive, and at worst, simply incorrect."

The authors question the "myth of economy" on the basis that most studies have failed to acknowledge *diseconomies* of scale—particularly in areas of transportation and purchasing—that often diminish or totally negate economies of scale. "The point is not that economies of scale are non-existent in rural education, but rather that they must be considered in conjunction with existing diseconomies."

The authors then examine the "myth of improved quality." The work of James Bryant Conant—whose 1959 study of the American high school was a powerful stimulus for consolidation—is closely examined. After using some of Conant's own data to undermine his arguments, Sher and Tompkins conclude that Conant's central conclusion is "certainly incomplete and probably incorrect." Other research evidence—including the 1966 Coleman report—is marshalled as evidence that school size is not significantly correlated with student achievement.

The authors conclude with an illuminating discussion of why the assertions of the consolidation movement went unchallenged for so long. They emphasize throughout a balanced approach to the consolidation question and the primary importance of local circumstances in determining the extent of rural consolidation.

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Managing Declining Enrollment

1 **Abramowitz, Susan.** "The Dilemma of Decline." Paper presented at the National Association of State Boards of Education annual meeting, Williamsburg, Virginia, October 1979. 13 pages. ED 184 233.

In the early 1970s, declining enrollments caught many educators off guard. Currently, most districts are still experiencing decline, but in other districts within the same state or region, enrollments might be increasing. In short, "growth and decline are occurring simultaneously" and many districts don't know what to expect next. These conditions, states Abramowitz, point out the need for improved educational management, particularly planning. In this document, Abramowitz outlines some of the actions that state governments could take to aid local districts in managing decline.

Most district managers are unable to make accurate predictions of future enrollments because of difficulties in obtaining and utilizing data about population and economic trends. These difficulties would be alleviated, says Abramowitz, if states developed reliable systems for the collection and dissemination of information on economic conditions, migration patterns, and other social and economic indicators.

States could provide other forms of technical assistance to districts as well, particularly assistance designed to improve management practices. The National Association of State Boards of Education, the National School Boards Association, and other professional associations could also help, says Abramowitz, by publishing information, holding seminars, and offering training programs and workshops on the management of decline.

Declining enrollments also threaten recent gains in affirmative action and special services. The state could intercede to protect affirmative action, Abramowitz contends, and could help alleviate the impact of cuts in special service funding by promoting the establishment of regional units or consortiums of districts among which the costs of these services could be shared.

2 **Bishop, Lloyd.** "Dealing with Declining School Enrollments." *Education and Urban Society*, 11, 3 (May 1979), pp. 185-95. EJ 205 697.

Before a school district can deal effectively with the complex political and organizational aspects of declining enrollment, it must have accurate data on future student enrollments and on the condition of all school facilities. Bishop here provides suggestions for solving these "technical problems of accurate data gathering" and discusses other general "strategies for dealing with decline."

Declining birthrate is of course the primary cause of enrollment declines nationwide. But locally, other demographic factors may be at work and should be considered carefully to obtain a more accurate enrollment forecast. Bishop lists many of these factors, including residential housing patterns, local building costs, in- and out-migration, multiunit housing development, and past population trends.

After accurate data have been collected, the district should establish and publicize the criteria it will use to decide which schools to close. To reduce public outcry, "these criteria should be announced well in advance to the community so the ground rules are understood prior to any public report on the consolidation of schools." Criteria to consider include facility condition, the effect of closures on racial balance, physical and natural barriers in the community, and changed student transportation needs.

To ease the stress of closing schools, districts should solicit community and school personnel input through opinion surveys and advisory committees. "If these committees are open to wide community participation, they can provide an excellent means of providing various interest groups a platform for discussion," states Bishop, and thus can "defuse potential conflicts" over school closures.

3 **Dembowski, Frederick L.** "The Effects of Declining Enrollments on the Instructional Programs of Public Elementary and Secondary Schools." Paper presented at the American Educational Research Association annual meeting, Boston, April 1980. 24 pages. ED 184 208.

In recent years, numerous articles have been written giving advice on how to deal with the problem of declining enrollment. Most of these recommendations, however, have concentrated on the fiscal impact of declining enrollment, whereas the impact on instructional programs has been largely overlooked. To help fill this void, Dembowski conducted a nationwide survey of school districts to determine both the effects of declining enrollment on instructional programs and school administrators' responses to the problem.

Dembowski sent questionnaires to 320 school districts of varying size, geographical location, and "percent student population change (ADM) from 1970-1977" and received 95 responses. The survey showed that between 1970 and 1977 districts with declining enrollments had, in general, more dropouts, a higher median staff age, an earlier teacher retirement policy, increased teacher certifi-

cation requirements, and more staff relocation than did districts with increasing enrollments. Districts with declining enrollments also tended to use alternative educational approaches more and to replace their instructional materials less often. Districts with increasing enrollments indicated less change in the quality of educational programs—either up or down—than did districts losing students.

Districts with high rates of decline were not reducing the number of courses they offered as fast as they were reducing the number of staff teaching those courses. Apparently school districts are not reducing their comprehensive educational programs" if they can retain "teachers versatile enough to teach all these courses," Dembowski observes.

As districts decline in enrollment, the amount of space allotted to each instructional area does not increase, but instead stays about the same. Dembowski speculates that districts must be getting rid of excess space instead of expanding into it.

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4 **Eisenberger, Katherine E.** "How to Learn to Manage Decline in Your School System." *American School Board Journal*, 165, 7 (July 1978), pp. 36-38. EJ 183 255.

Long-range planning is essential for dealing effectively with declining enrollment. Yet a school board's decision on the district's long-range plan will be neither forceful nor consistent if voting is the primary method of decision-making. Developing a workable, long-range plan for dealing with declining enrollment, Eisenberger contends, requires a consensus-based system of decision-making. To make consensus work for something so extensive and complex as a long-range plan, Eisenberger suggests a "divide and conquer" approach to the decision-making process.

First a list of the proposed segments of the plan should be made. Sections on which everyone can agree should be put aside. Segments over which there is disagreement should be listed and a record made of the pros and cons for each. Next, areas of partial agreement in the pros and cons should be searched for. "This narrowing down," says Eisenberger, "creates a sense of progress and can generate a positive frame of mind."

The areas of greatest disagreement should be specifically identified, and discussion should focus on these areas until an agreement satisfactory to all board members is reached. "Objections occur for specific reasons," Eisenberger points out. "Identifying these concerns and finding ways to resolve them are essential to arriving ultimately at over-all consensus."

Once the entire plan is assembled, each board member should explain why he or she approves of the plan. "This final phase in the process is vital," states Eisenberger, "because it clarifies each board member's point of view, signals solidarity," and prepares the board for the important work of selling the plan to school personnel and the community.

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5 **Iannaccone, Laurence.** "The Management of Decline: Implications for Our Knowledge in the Politics of Education." *Education and Urban Society*, 11, 3 (May 1979), pp. 418-30. EJ 205 703.

Normally, school districts and other political systems continue to operate even though fundamental, unresolved tensions remain in their political structures. "Declining enrollment problems tend to heighten or make manifest" these latent tensions, says Iannaccone. "The political nerve hit by declining enrollment problems everywhere—one of its universal political aspects—is the somewhat hidden political tensions already present in the local political system."

The management of declining enrollment would be easier if school administrators understood the politics of education, in particular the ways districts react to a stress such as declining enrollment and then eventually stabilize again. The patterns of reaction to such stresses have been studied in school districts, states, Iannaccone, and many of these studies have predictive power. It is clear, though, "that educational administrators are either unaware of this body of research or do not make the inference needed to put the existing knowledge . . . to work as they address the problems of declining enrollments."

Part of this "existing knowledge" concerns the interaction of technical information and political values in the policy-making process. At each stage of the policy-making process, technical information (such as enrollment projections and facilities reviews) is used primarily "to crystallize political inputs to a policy choice." School administrators should remember that their role in dealing with declining enrollments is one of "political conflict management" and should avoid becoming "wedded to the implied technical solutions" to the problem.

In this interesting article, Iannaccone also critiques and reflects on several of the preceding articles in the same issue of *Education and Urban Society*, which describe how districts ranging in size from rural to large-urban have responded to declining enrollments.

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6 **Mazzoni, Tim L., and Mueller, Van D.** "School District Planning for Enrollment Decline: The Minnesota Approach." *Phi Delta Kappan*, 61, 6 (February 1980), pp. 406-10. EJ 215 961.

School district planning in Minnesota has traditionally been decentralized. When Minnesota schools began experiencing declining enrollment in the early 1970s, however, this decentralized planning system failed to provide adequate guidance for a smooth transition to smaller school systems.

In the mid-1970s, the state legislature finally stepped in and passed three laws specifying planning and organizational procedures for the state's school districts. In this informative article, Mazzoni and Mueller detail these laws, describe the recent history

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of state responses to declining enrollment, and discuss the implications and future of state planning in Minnesota.

In 1971, when school enrollments were at an all-time high, the legislature passed its first bill to "cushion" a district's revenue loss resulting from declining enrollment. Between 1973 and 1977, several other statutes were amended or created to ease the impact of declining enrollment.

In early 1976, the legislature established the state's first school-planning law, which authorized the establishment of Educational Cooperative Service Units (ECSUs). ECSUs are designed both to encourage regional educational planning and to provide educational services on a regional rather than a local basis if students are better served that way. In late 1976 and 1977, the legislature passed other bills requiring districts to use curriculum evaluations and planning as well as comprehensive planning on both regional and district levels.

The authors draw three conclusions about Minnesota's response to declining enrollment. First, "it did not require a crisis for state government to respond to changed conditions" in Minnesota, though the state's response "was reactive, not anticipatory." Second, state officials provided leadership through the initiation of legislative responses, often in the face of substantial resistance from special-interest groups. Third, "political bargaining, not rational design, was the central dynamic of the policy-making process," a result to be expected from any legislative process.

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7 **Nowakowski, James A.** "Hidden Opportunities in Declining Enrollments." *American School and University*, 52, 8 (April 1980), pp. 40, 42s, 44. EJ 221 566.

A few of the complex problems facing school districts today "manage to be transformed by the passage of time into blessings rather than curses." Declining enrollment, says Nowakowski, is one of these rare problems. As a case in point, Nowakowski describes the innovative coping strategies developed in a suburban Chicago school district.

Leyden Township District 212 was experiencing declining enrollment and considered going to the "2-2 Plan" with its two high schools, separating the lower and upper classes into the two buildings. Instead, the district decided to stagger the schedules of the two high schools and bus some students back and forth to fill up classes in each building. "A student could be bused for courses from one school to another, losing only one period through the staggering instead of the two periods if both schools were on the same schedule," explains Nowakowski.

Several other advantages accompanied this arrangement. Each building maintained its identity, and more students had an opportunity to participate in varsity sports. Also, the district could make bus driving a full-time position instead of a part-time position, which made it easier to find drivers.

Leyden school district has alleviated its staffing problems with an innovative policy regarding leaves of absences. According to Superintendent David Byrnes, "the board encourages any teachers with tenure to take a leave of absence if they've been thinking about it for some time. We do this by offering to retain the tenure of that teacher."

The teacher can take an absence of one or more years and can return at the beginning of any school year without question as long as "the reduction of force hasn't reached his or her seniority level." So far, the policy is working, "despite the seeming risk involved in a board offering to retain the tenure of absent teachers."

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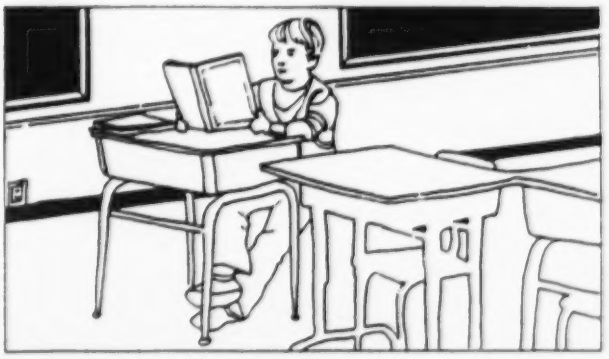
8 **Relic, Peter D.** "Don't Let Quality Fall with Enrollments." *American School Board Journal*, 167, 8 (August 1980), pp. 29-30. EJ 230 084.

According to a recent survey, school board members consider declining enrollment to be the number one problem in public education today. "But what really concerns board members," Relic contends, "is the effect declining enrollment will have on the *quality* of local schools." In response to this concern, Relic here offers several suggestions for helping school boards maintain quality secondary schools in times of declining enrollment.



An initial step is to define what is meant by "quality." "Are quality schools ones that produce students with a firm command of a few skills," Relic asks, "or ones that produce students with a broad background in numerous disciplines?" The board must decide and then use appropriate standardized tests to determine where the district's students stand. Board members should also pay close attention to other indicators of quality, such as the percentage of students graduating from high school each year, attendance statistics, and overall grade point averages.

Because fewer new teachers enter the school system in times of declining enrollment, teacher inservice training becomes particularly important for improving educational quality. Relic advises boards to make sure that funding is adequate for inservice training and curriculum development programs, to leave sufficient time in staff schedules for faculty study, and to tap all possible sources for ideas and development strategies for inservice programs.

Board members should also step up discussion with school officials, community members, and social science experts about why secondary schools are experiencing so much difficulty. Increased dialogue, states Relic, "will help educators discover answers to their questions about what has gone wrong with initiative, productivity, and creativity in the U.S." Once boards understand the problems, they can "move ahead with a redirection of purpose for schools."

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9 **Wachtel, Betsy, and Powers, Brian.** *Rising above Decline*. Boston: Institute for Responsive Education, 1979. 200 pages. ED 180 082.

How can citizen involvement in decisions regarding declining enrollment be enhanced? This is the question both posed and answered in this publication by the Institute for Responsive Education, which was founded, states the preface, "to increase citizen participation in educational decision-making."

Powers opens the discussion with a description of the sequence of events in a typical community following the recognition that school enrollments are declining. The board usually appoints an advisory committee of prominent and responsible citizens to help the central administration plan for declining enrollment. Although the committees are supposedly autonomous, says Powers, "professional administrators usually end up playing a firm and controlling role in the preparation of advisory committee recommendations." As a result, when the advisory committee and school board present their recommendations regarding declining enrollment to the community, there is an uproar of protest over school closures and the lack of public participation in the decision-making process.

Powers argues that this kind of public resistance to policies "developed by professionals or professionally dominated com-

mittees in isolation from the community they serve" signals "a profound change in the political climate of education." Citizens are now demanding that they be involved in critical educational decisions, such as those surrounding declining enrollment.

The next six chapters of this book describe in detail the efforts of citizens and school officials in several communities to find solutions to the problems posed by declining enrollment. Reviewed by contributing authors are descriptions of responses to declining enrollment in Salt Lake City, Skokie (Illinois), the San Francisco Bay Area, Lexington (Massachusetts), Boston, and two rural districts in Iowa.

Wachtel concludes with an essay on ways to enhance community involvement in decisions about declining enrollment. Included are descriptions of methods and tools needed to plan for declining enrollment, suggestions for conducting community surveys, and numerous suggestions for further increasing citizen influence on the district's decision-making process.

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10 **Wendel, Frederick C.,** editor. *Maintaining Quality Education in the Face of Declining Resources. Briefings in Educational Issues Number 2.* Lincoln: University of Nebraska, 1979. 141 pages. ED 176 366.

"Quality in the public schools, now and for the future, will depend in large measure on the quality of the planning which the society and educators provide." Planning is a key theme running through the nine chapters of this publication on managing enrollment decline, written by eight professors of education at the University of Nebraska (Lincoln).

The initial chapter describes the "critical realities" present in society that impinge on school governance. The conflict between declining enrollments and Americans' "bigger is better" ethic is discussed in the second chapter.

The third chapter explores in some detail systematic planning models. The five basic questions that structure the planning process are: Why? Where are we now? Where do we want to go? How are we going to get there? and, How will we know when we get there? The planning model developed by the New Jersey Department of Education is discussed in detail, and eight other planning models are listed along with availability information.

The next chapter outlines approaches to the reduction of services and programs. The four basic approaches described are "Amputate Selected Programs," "Trim Each Program," "Allocate Resources Based on Unique Needs of a Program," and "Combining Programs."

The remaining chapters discuss issues related to student activity programs, budget reviews, reduction in force, special education programs, and the long-range implications of declining enrollment. Included is an extensive fifty-page annotated bibliography.

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11 **Yeager, Robert F.** "Rationality and Retrenchment: The Use of a Computer Simulation to Aid Decision Making in School Closings." *Education and Urban Society*, 11, 3 (May 1979), pp. 296-312. EJ 205 698.

In the early 1970s, the Unit Four School District in Champaign (Illinois) was experiencing declining enrollment and had decided that some schools would have to be closed. Yeager—a resident of Champaign and a doctoral student doing a thesis on the use of computers in social studies education—here describes the development of "a computer simulation of school closings" that was "developed to help the school board members evaluate the consequences of closing different schools."

To help decide which schools to close, the board established several criteria, including students' walking distances, number of students bused, maintaining integration, and condition of the facilities. Two things soon became obvious, says Yeager: many of the criteria were quantifiable, and the interactions among the criteria were confusing when more than one school was considered. Thus, with the support of the administration and many community members, a computer simulation model was developed and data collected for input.

"The Unit Four simulation was unique because it was designed to show the effects of closing more than one school at a time," states Yeager. "It allowed users to specify any combination of school closings and see what impact that combination had upon the school board's criteria."

The simulation used the PLATO IV computer system for two reasons: the system had powerful graphics capabilities, and, through a National Science Foundation grant, the system was already being used in the district to teach elementary reading and math. About forty PLATO terminals were already available in the district's eight schools, so the simulation was made available to any community member who wished to use it.

Interestingly, the school board's decision on which schools to close "did not appear to be affected by the data generated by the computer simulation." The simulation did have real value, though, concludes Yeager, because it provoked many discussions in which assumptions about the delivery of education were identified and debated.

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The Best of ERIC presents annotations of ERIC literature on important topics in educational management.

The selections are intended to give educators easy access to the most significant and useful information available from ERIC. Because of space limitations, the items listed should be viewed as representative, rather than exhaustive, of literature meeting those criteria.

Materials were selected for inclusion from the ERIC catalogs *Resources in Education (RIE)* and *Current Index to Journals in Education (CIJE)*.

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School Closing

1 **Brody, Judith A.** "How to Close a School and Not Tear Your Community Apart in the Process," and **Beck, Wesley, W., Jr.** "Everybody Got into the Act When Blackwell Closed a School." *American School Board Journal*, 163, 6 (June 1976), pp. 31-35, 46. EJ 139 363 and 139 364.

Closing a school is necessarily an emotional and traumatic event for a community. Brody states, but it need not tear the community apart. Paths to successful closings lie in changing community attitudes toward enrollment decline, long-range planning, and community involvement.

Community members often resist school closings because they equate them with community decline. It is thus important for administrators and the board to help citizens see the benefits that come with declining enrollment. Fewer students and extra space can provide opportunities for achieving racial integration, lowering class size, and creating new community education centers and more early childhood and adult education centers.

The easiest way of overcoming community resistance is involving the community as extensively as possible in planning and decision-making. Community task forces can study enrollment trends and facilities and recommend solutions to the board. Task forces should be broad-based and include community members opposed to a closing.

Long-range planning for declining enrollment begins with collecting data—past, current, and projected—on population, birthrates, budgets, staff, and facilities. State departments of education might be able to help districts with this difficult task. After gathering and analyzing the data, districts will need to develop policies for staff reduction, surplus space utilization, and a host of related problems.

Brody supports her suggestions with several examples of district action. Beck adds an extended illustration of a successful community-guided school closure. Faced with rising costs and an enrollment drop of 15 percent, the Blackwell, Oklahoma, schools reorganized and converted one of four underused elementary schools into a districtwide kindergarten and special education center. The conversion brought curricular enrichment as well as a $154,000 reduction in expenses. The work of a school-community task force proved crucial to the district's two-year reorganization effort.

2 **Educational Facilities Laboratories.** *Surplus School Space: Options and Opportunities. A Report.* New York: 1976. 75 pages. ED 126 614.

Since enrollments first started their decline, districts have found a wide range of new uses for surplus school space. This report discusses the many factors that can influence reuse planning, such as population trends, state law, zoning ordinances, and the needs of private schools, and provides numerous examples of how districts and communities have put surplus classrooms and schools to use. It addresses concerned community members who might participate in reuse planning rather than professional educators.

The first consideration for surplus space should normally go to eliminating undesirable buildings and to housing educational programs and services, such as music, art, science, and vocational education, inadequately served during the period of growth.

Vacant school buildings can often serve a variety of public programs as human resources centers. Such use is especially desirable when a community has fewer school-aged children, but more young adults and senior citizens. The new programs can contribute to a sense of community resurgence and growth and help hold in town people who might otherwise choose to leave.

Sometimes government agencies, such as a parks and recreation department or a community college, can take over a surplus school. Another promising alternative for a district is the creation of a nonprofit agency to take over the school buildings and manage programs. Other options include filling surplus space with preschool and adult education programs, leasing space to private and other public schools, and selling a building for conversion into housing or industrial use. This last option has the advantage that the property will rejoin the tax rolls.

3 **Eisenberger, Katherine E.** "Enrollment Decline: The Task Force." Paper presented at the American Association of School Administrators annual meeting, Atlantic City, New Jersey, February 1976. 17 pages. ED 125 129.

One of the most important issues facing administrators in this time of enrollment decline, decreasing public confidence, and increasing demand for community control is how to provide for

Announcements

The next issue of The Best of ERIC will appear in September.

A new edition of the *Directory of Organizations and Personnel in Educational Management* is available from the Clearinghouse at $5.95 per copy (prepaid or purchase orders).

6 **Hosler, Galen,** and **Weldy, Gilbert R.** "A Case Study: How One District Is Closing a High School." *NASSP Bulletin*, 61, 407 (March 1977), pp. 35-46. EJ 160 402.

Hosler and Weldy report the experience of the Niles Township high school district in closing a school. The authors are principals of schools affected by the closing.

After a year of study and public involvement, the Niles board decided in the spring of 1975 to close one of its three schools and transfer its students to the other two. The decision raised a host of unforeseen questions, and the district began its planning in earnest. The board issued a comprehensive position statement and a general closing plan, initiated further community dialogue, and appointed two advisory committees of staff, students, and community members. One committee considered the tasks of moving people and goods; the other the future use of the building.

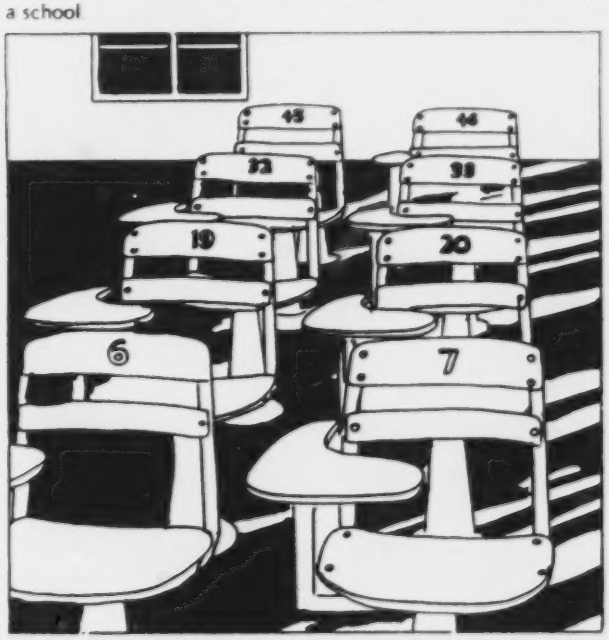
Following a study of closing alternatives, the first committee recommended that a full school program be maintained right up to closing. The board accepted this proposal in June 1976 and then set the committee to work developing detailed plans for the closing, set for June 1980. The committee divided its tasks among numerous subcommittees for the articulation of certified staff, classified staff, school curricula and services, and cocurricular activities and the disposal of the library collection and school equipment. Planning for the disposal of equipment required nine groups.

The uprooting of students, staff, and community brought by a closing, the authors conclude, demands thorough planning. The district's early start and careful, judicious planning, they believe, will make the final transition smooth and routine.

7 **Leggett, Stanton.** "Sixteen Questions to Ask—and Answer—Before You Close a Small School." *American School Board Journal*, 165, 4 (April 1978), pp. 38-39. EJ 175 691.

For years, districts have followed "the relentless demands of economic prudence" and continued to close small schools over parental and neighborhood protest. But now, Leggett writes, districts are taking a second look at alternative means of keeping small schools alive.

The base issue, Leggett states, is this: Can small schools find ways to cut their per-pupil costs to keep them in line with those of larger schools? His answer is "maybe." He goes on to list cautions and means for cutting costs that districts should consider before closing a school.



First of all, districts should not "jump to conclusions about enrollment projections." They may find that their presently empty space will be needed again in ten or fifteen years, and its maintenance costs may be less than the cost of a new school. Districts should also carefully examine overhead to make sure that per-pupil costs are accurately evaluated. Many district budgets have built-in prejudices against small schools, since they divide special costs equally among schools.

Administrators have numerous possibilities for cutting small school costs. They can establish multigraded classes; revise staffing policies; use the principal, secretary, and librarian for instruction; have faculty manage a school; use technology for instruction; change from school to central food preparation; make constructive use of empty classrooms; eliminate the librarian and arrange services with the public library; organize the district's custodial workers as a systemwide team; and find new ways to provide services such as art, music, and physical education.

Leggett concludes by advising districts to operate their schools on a program budget. When each school has an individual program budget, the district can bring in the public and ask for ways to keep the costs down. And if it becomes necessary to reduce services or close a school, the decision will meet with greater public understanding and acceptance.

8 **Peckenpaugh, Donald.** "Closing a School? What the Principal Must Consider." *NASSP Bulletin*, 61, 407 (March 1977), pp. 20-30. EJ 160 400.

Peckenpaugh lists and discusses nineteen tasks required of the principal during a school closing. His work is based on the procedures used by the Birmingham, Michigan, schools to close a junior high school.

After the decision to close has been made, a principal's first task is to review his or her assignment to clarify all expectations and responsibilities. The principal will also need at the start to update the district's enrollment study, review possible attendance boundaries for the receiving schools, and establish an advisory committee for community participation in the closing process.

As the closing proceeds, the principal will need to oversee the following tasks: reassignment of staff and students; a public information campaign; orientation programs for students, parents, and staff; new transportation arrangements; coordination of school curricula and cocurricular activities; students' constructive expression of their feelings; disposal of business and student records; division of school equipment; and moving of equipment. Only after all these concerns are met comes the actual closing of the school.

Peckenpaugh fills out his list with advice. He gives the following suggestions, for instance, to help principals divide up a school's equipment, furniture, supplies, and materials. Principals should assign someone to coordinate this task, start with an accurate updated inventory, and work up a defensible rationale for the division. One possible rationale calls for sending equipment first to the receiving schools according to their needs and the number of new students they gain and then to all other schools according to their needs. Principals will also need to pay special attention to school trophies and to class gifts and items purchased by parent groups. For the latter two, principals should seek out the advice of the donors. And last, principals should remember that staff time will be necessary for setting up the equipment in the receiving schools.

9 **Rideout, E. Brock,** and others. *Meeting Problems of Declining Enrolment: Educational, Social, and Financial Implications to School Boards of Declining Enrolments.* Toronto: Ontario Ministry of Education, 1975. 104 pages. ED 140 396.

Nine detailed and provocative case studies recount a variety of district responses to underused school space. Some districts have

effective public involvement in school planning. Eisenberger analyzes the school closing task force, the most widely used form of community involvement in planning for decline. Her discussion supplements that of *Declining Enrollment: What to Do* (see below).

A few key factors, Eisenberger writes, determine the success or failure of the school closing task force. First is the length of time and type of task force. Districts just beginning to confront the reality of school closings should use extended study committees, which meet once or twice a month for nine months to a year. Second is the composition and leadership of the task force. Districts should seek the most comprehensive membership possible. The matter of leadership admits of more choice: an outside consultant or central office administrator may serve as a leader, the board may appoint one, or the task force may elect its own. Third is the means of selecting members. Members may volunteer, the board may appoint them, or community organizations may send representatives. Fourth is the charge of the task force, which may be general or specific.

The most crucial factor is organizational structure. Eisenberger illustrates some structuring possibilities with a case study of one successful task force. At the first meeting, the leader should turn the discussion away from charged debate over school closure to such practical matters as establishing a calendar of meeting dates, deciding what meeting format to follow, and identifying resource people who can provide specific and technical data. When a task force has to decide which schools to close, it will need an objective method. Eisenberger describes in detail the use of the KEMEC model, which identifies and ranks eight school closing criteria similar to those given in *Declining Enrollment: What to Do*.

4 **Eisenberger, Katherine E.**, and **Keough, William F.** *Declining Enrollment: What to Do: A Guide for School Administrators to Meet the Challenge of Declining Enrollment and School Closings. AASA Executive Handbook Series, Volume 2.* Arlington, Virginia: American Association of School Administrators, 1974. 67 pages. ED 111 094.

This report remains the major sourcebook on school closing. Although it suffers from a disorderly presentation, it offers a sound planning framework and much helpful advice.

School closings, the authors stress, are not routine and merely economic problems. Their true issue is the people involved, and they demand the utmost skill, care, and effort in interpersonal relations. Parents, children, teachers, and principals must all confront loss and the difficult task of establishing themselves in new surroundings. Some remedies for the personal problems and tensions of a closing are community, staff, and student polls, student visits to their future schools, teacher visitations and exchanges, and simulation exercises for board members and administrators. Most important is the use of a task force of community members.

Careful cost-benefit analysis and building-by-building comparative studies must precede any selection of schools for closing. Administrators should know the operating efficiency of buildings for the next five to ten years. Their financial knowledge should cover capital outlay, heating, electrical adequacy, maintenance, insurance, and alternative facility use.

The selection of schools for closing, however, must account for more than financial data. Eisenberger and Keough suggest that districts apply several other criteria in their deliberations. These are a school's condition and flexibility, potential use, academic excellence, capacity and present enrollment, and location. This last criterion should include considerations of the distance students have to travel to new schools, new transportation costs, and the maintenance of a similar socioeconomic, racial, and ethnic mix.

This rich study also includes a detailed school closing timeline, which marks out specific activities three years in advance of any actual closing, a school closing checklist, and an enrollment forecasting method for ready use.

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5 **Eugene Public Schools.** *Small Schools Task Force: Final Report.* Eugene, Oregon: 1976. 83 pages. ED 117 804.

A task force studying the possible closure of nine small elementary schools in this Oregon district of thirty-one elementary schools concludes that the smaller schools, even when operating below three-quarters capacity, offer benefits that more than outweigh their extra costs. At current population growth rates, new enrollment should return to normal within the next decade, though attendance boundaries may require some change.

A strictly financial approach to closure fails to consider the value of a school for its neighborhood, the effects of closure on property values, and possible community resentment and reaction. The financial benefits of closing a school should also prove minimal at best. The per pupil expenses of the smaller schools are only three-fifths of a percent higher than those of the larger schools, and the net savings of one school closure would represent only about one-third of a percent of the total cost of the elementary school system. The opportunities for student participation and the creative use of extra space for both educational and community programs make the maintenance of schools worthwhile.

This report offers an excellent example of how a local school community task force can study the demographic, economic, social, and philosophical issues of school closure and develop a practical and clearly stated policy that fits the unique needs of that area.

found ways to maintain small schools and satisfy their communities, some have successfully closed schools with a minimum of pain, and others have followed clumsy unilateral planning into community battles and court. The case studies underscore the need for keeping the community well informed, involving the community in finding solutions, and starting with an acceptable plan for school use after closure.

The authors follow their case studies with school closing guidelines. Ongoing research and planning is the first and most crucial step in successful management of shrinking schools. Comprehensive long-term projections have proved particularly helpful for many boards. Such plans should contain data, updated annually, on enrollment, costs, staffing, facilities, and program adequacy. Boards will also want to consider the needs of other area districts for a possible combined approach to enrollment problems.

Boards should also develop a general policy for declining enrollments well before any need for action. Community members can then have the opportunity to express their concerns before they have a personal involvement in the closing of their own neighborhood school. A general policy should include criteria covering minimum school size and utilization, advisory committee use, and appeals of board decisions.

Also necessary are procedures for a school review and a school closure. When a school's enrollment drops, a review should produce alternative responses, which may include establishing multigrade classes, pairing schools to save administrative costs, adjusting attendance boundaries, and leasing vacant classroom space, in addition to closing. The authors list and discuss the essential actions and concerns for both school reviews and school closings.

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10 **Sargent, Cyril G., and Handy, Judith.** *Fewer Pupils/Surplus Space: A Report.* New York: Educational Facilities Laboratories, 1974. 55 pages. ED 093 046.

Schools have several options for facility use during decline, Sargent and Handy report. Newly empty space can at first offer a welcome opportunity for curricular enrichment. As the problems become more serious, districts can use buildings for new educational uses (such as alternative schools), open them up to government and community agencies, and lease and sell them for commercial use. A set of priorities established in advance for the use of surplus space will help clarify district options and ease the closing process.

All districts, no matter what their unique needs, require a plan for school shrinkage, the authors emphasize. A plan for shrinkage must include enrollment projections [illegible] and general adequacy, and data on community changes [illegible] analysis of the data; (4) a set of possible solutions and [illegible] among alternatives. This latter should include a realistic [illegible] choice, a time sequence for its completion, and a cost analysis [illegible] the plans. The authors advise districts to develop both a comprehensive master plan—covering grade, program, personnel, organization, and physical plants—and a closure plan.

The process of closing a school is a political act. Two [illegible] rules should guide it. Administrators should allow plenty [illegible] time, and involve the community in planning for closings and selecting the choices to be made. Some educators have recommended a two-stage process. Districts should first present their data as a whole for community discussion and acceptance, and only then should administrators talk about the specifics of closing individual schools.

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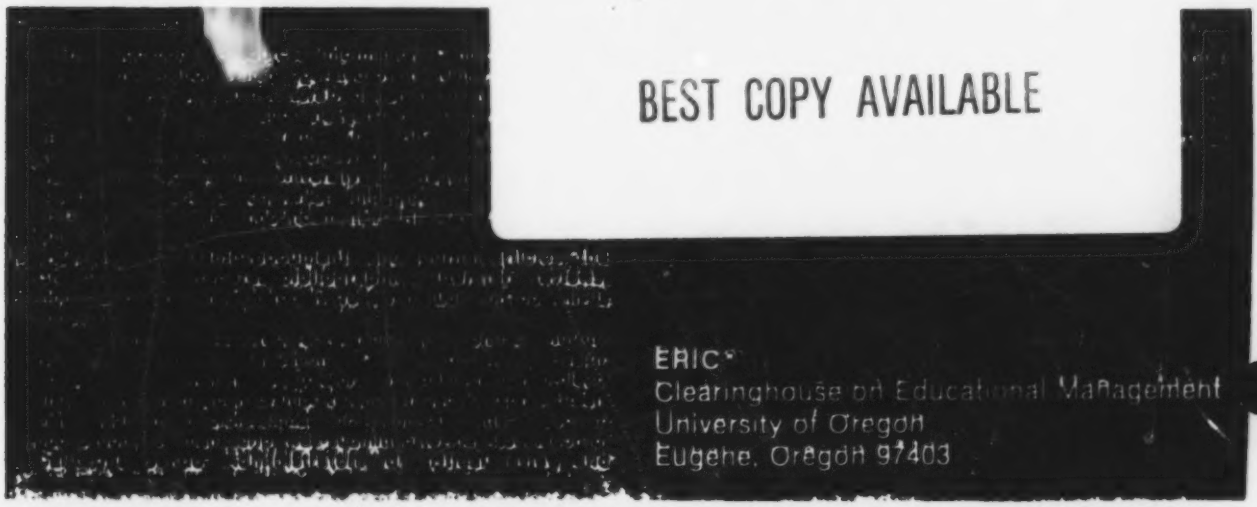
11 **Sieradski, Karen.** *Implications of Declining Enrollments for Schools. School Leadership Digest Series, Number 17. ERIC/CEM Research Analysis Series, Number 19.* Arlington, Virginia, and Eugene: National Association of Elementary School Principals, and ERIC Clearinghouse on Educational Management, University of Oregon, 1975. 32 pages. ED 114 906.

Declining enrollments mean adversity, Sieradski notes, but this adversity offers challenge and opportunity. Districts can make programs better as they condense them, and the process of closing schools can bring closer school-community relations. There are four major imperatives for administrators in this period of decline. Accurate enrollment forecasting and planning long in advance of necessary school closings or reorganization are first [illegible]. Educators also need to communicate with all those affected—teachers, students, parents, and community members—if they hope for any success.

Some of the ways of easing the pain of school closings are coffee hours for parents, interschool visitations for staff and students, and the use of task forces. A task force of staff, students, parents, and community members should fulfill the following duties. It should (1) review the district's enrollment forecasting methods and data, (2) visit and rate each school according to its adequacy, (3) establish criteria for deciding which schools to close, (4) recommend schools to be closed and the order of closure, and (5) recommend future use of the closed schools.



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